

SERVICE MANUAL

& PARTS LIST (without price)

POCKET TELEVISION

TV-1450C

TV-1450N

TV-1450D

MAY 1991

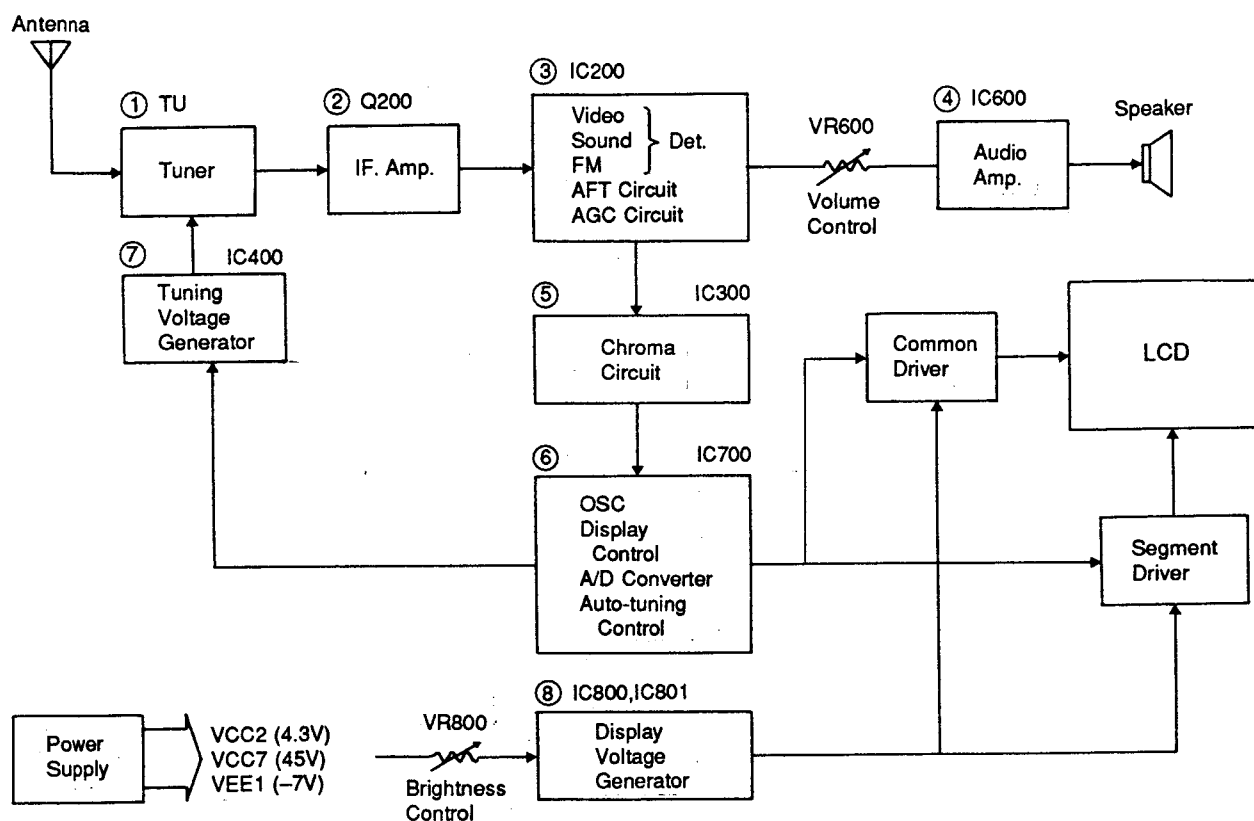
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CASIO®

SPECIFICATIONS

Item	Specification															
1. Reception channels	TV-1450C : VHF 2 ~ 12ch UHF : 21 ~ 69ch TV-1450N : VHF 2 ~ 12ch UHF : 21 ~ 69ch TV-1450D : VHF — UHF : 21 ~ 68ch															
2. Power voltage	DC 6.0V															
3. Power consumption	Approx. 3.8 W															
4. Current consumption	Approx. 630 mA															
5. Battery life (with alkaline batteries)	Approx. 2.0 hours															
6. Power supply	Batteries: 4AA size batteries Car adaptor: CA-K65 AC adaptor: AD-K65															
7. Connection terminals	Earphone jack: 3.5ø mini External power jack: 6.0V DC IN External antenna jack: 3.5ø mini Audio/Video jack: 3.5ø															
8. Screen size	2.7 inches															
9. No. of picture element	118,580 (220 x 539) dots															
10. Dimensions	140 mm (H) x 87 mm (W) x 37 mm (D) 5-1/4" (H) x 3-1/2" (W) x 1-1/2" (D)															
11. Weight	300g excepting batteries 10.6 oz excepting batteries															
12. Standard accessories	Soft case, Ear phone and Test batteries (R6 x 4)															
13. Options	<table><tr><td></td><td>TV-1450C,TV-1450D</td><td>TV-1450N</td></tr><tr><td>AC adaptor:</td><td>AD-K65</td><td>AD-K65</td></tr><tr><td>Car adaptor:</td><td>CA-K65</td><td>CA-K65</td></tr><tr><td>RF connector:</td><td>CF-13</td><td>—</td></tr><tr><td>Antenna matching device:</td><td>AS-35S</td><td>—</td></tr></table>		TV-1450C,TV-1450D	TV-1450N	AC adaptor:	AD-K65	AD-K65	Car adaptor:	CA-K65	CA-K65	RF connector:	CF-13	—	Antenna matching device:	AS-35S	—
	TV-1450C,TV-1450D	TV-1450N														
AC adaptor:	AD-K65	AD-K65														
Car adaptor:	CA-K65	CA-K65														
RF connector:	CF-13	—														
Antenna matching device:	AS-35S	—														
14. Body clolor	Black															

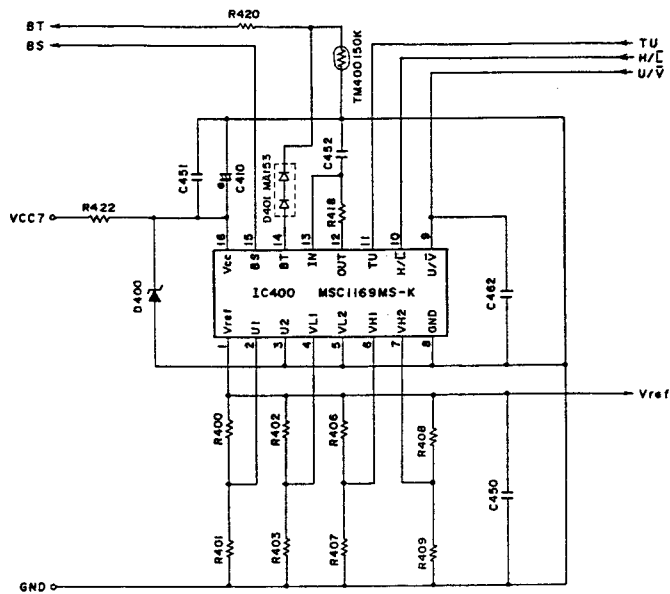
BLOCK DIAGRAM



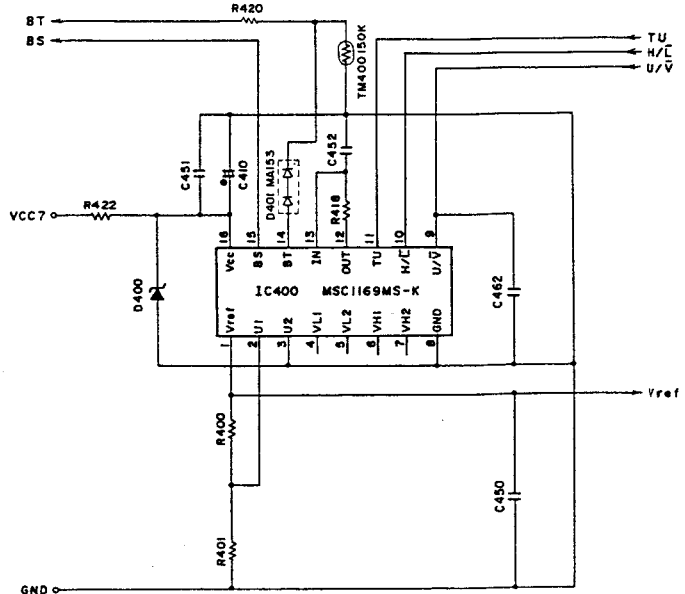
- ① - Color Tuner TU TEPE5-01(TV-1450C, TV-1450N), TEPB5-02(TV-1450D)
Selects a desired radio wave, and changes it to the video IF signal.
- ② - Video IF Amp. Q200 2SC4238
Amplifies the video IF signal output from the tuner TU by 10 times (20dB).
- ③ - Video, Sound, FM, AFT Det., AGC IC200 M51348FP
Eliminates the carrier wave in the video IF signal, and picks up the video signal and the sound IF signal. Also the sound signal is picked up from the sound IF signal by FM detection.
- ④ - Audio Amp. IC600 TA7368F
Sound amplification.
- ⑤ - Chroma Circuit IC300 M51403FP
Generates the tricolor of red, green and blue from the video signal.
- ⑥ - OSC, A/D Converter IC700 MSM6348GS-K
Converts the color signal into digital signal.
Also generates the clock pulse for the display, and controls the display.
- ⑦ - Tuning Voltage Generator IC400 MSC1169MS-K
Generates the tuning voltage from the tuning pulse (TU) output of ⑥.
- ⑧ - Display Voltage Generator IC800 BA10358F, IC801 MSM6362MS-K
Generates the display voltages V0 ~ V4 from VEE1 and VCC7 outputs of the power supply.

CIRCUIT OPERATIONS

Tuning Voltage Generator



TV-1450C, TV-1450N



TV-1450D

Fig. 1

This circuit generates the DC tuning voltage BT for selecting a channel from TU pulse being output from IC700.

IC400 has 3 circuits for converting pulses to voltages, selects one of VHF-L, VHF-H or UHF, and causes the tuning voltage to be output from the TU0 terminal (pin no.12). Fig. 2 and Table 1 show the conditions for selection.

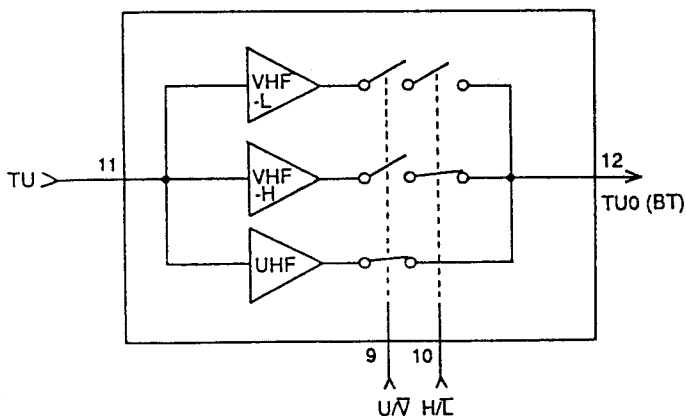


Fig. 2

INPUTS		Function
U/V	H/L	
L	L	VHF-L receiving
L	H	VHF-H receiving
H	L	UHF receiving
H	H	UHF receiving

Table - 1

Power supply

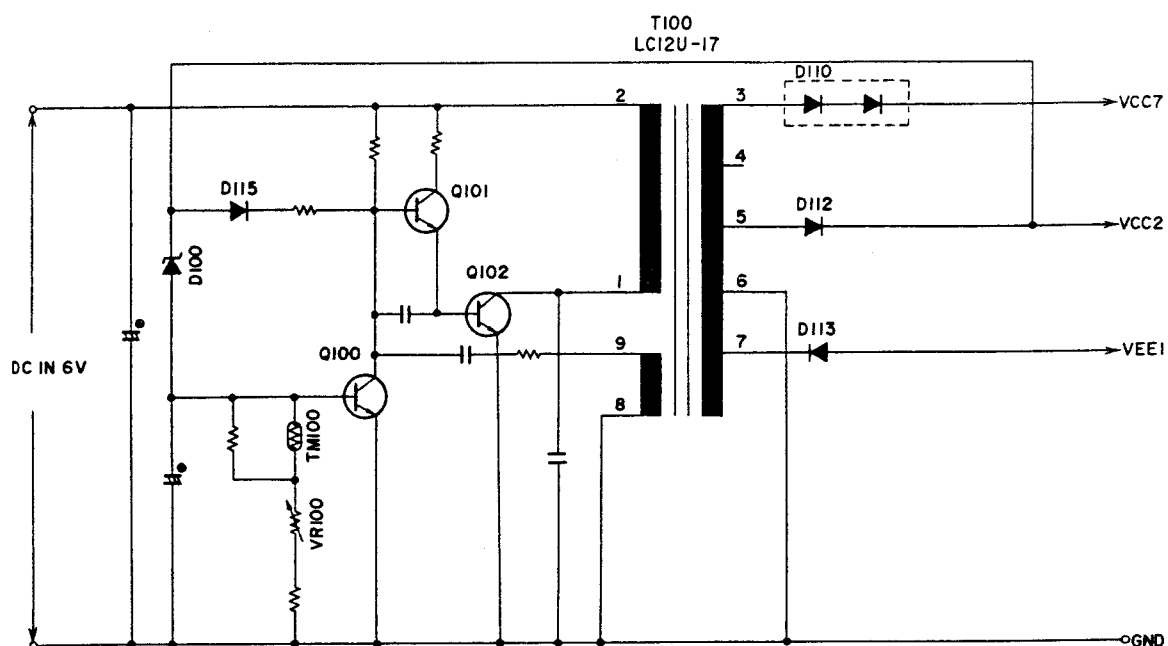


Fig. 3

The power supply consists of DC-DC converter, and causes the voltages to be output as shown in Table 2.

Name	Voltage	Function
VCC2	$4.3 \pm 0.02V$	Main voltage
VCC7	$45.0 \pm 2.25V$	Display, Tuning voltage
VEE1	$-7.0 \pm 0.35V$	Display voltage

Table – 2

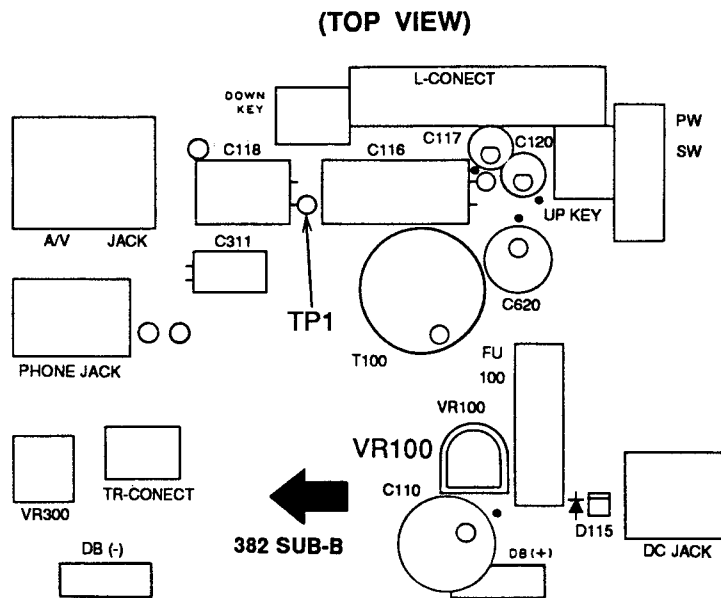
ADJUSTMENT

SUB PCB

1) Items to be adjusted:

Item	Measuring Instrument
VCC2 voltage setting	Voltmeter

2) Adjustment and Test Point Locations



3) Equipment connection / Procedure

Vcc2 voltage setting						
Input Connection	Input Point	Input Signal	Adjust	Output Connection	Output Point	Adjust for
—	—	—	VR100	Voltmeter	TP1	Adjust for $4.3 \pm 0.02V$ reading on voltmeter.

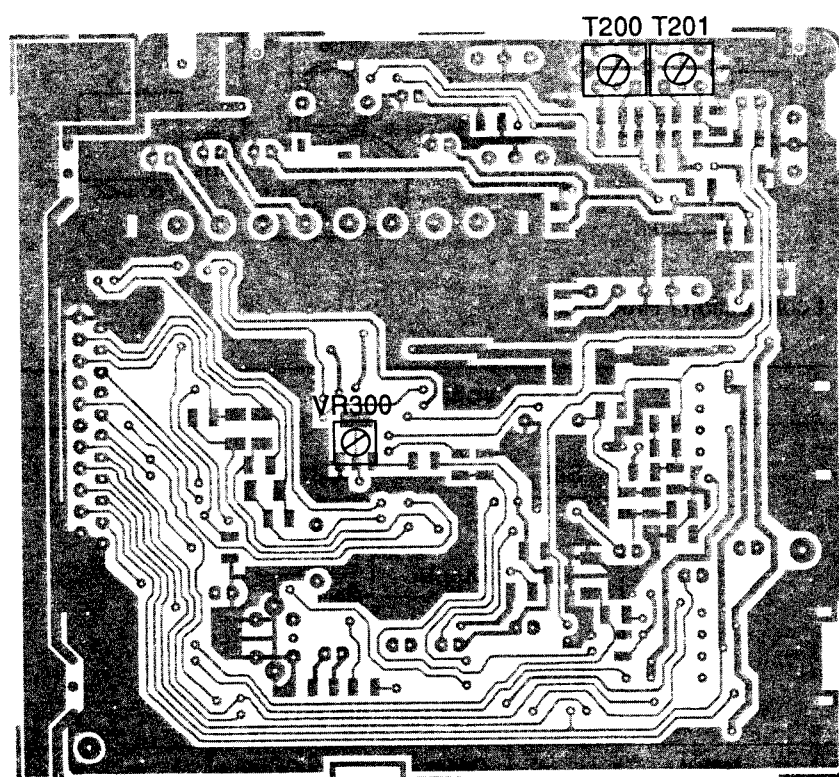
Linear PCB

1) Items to be adjusted:

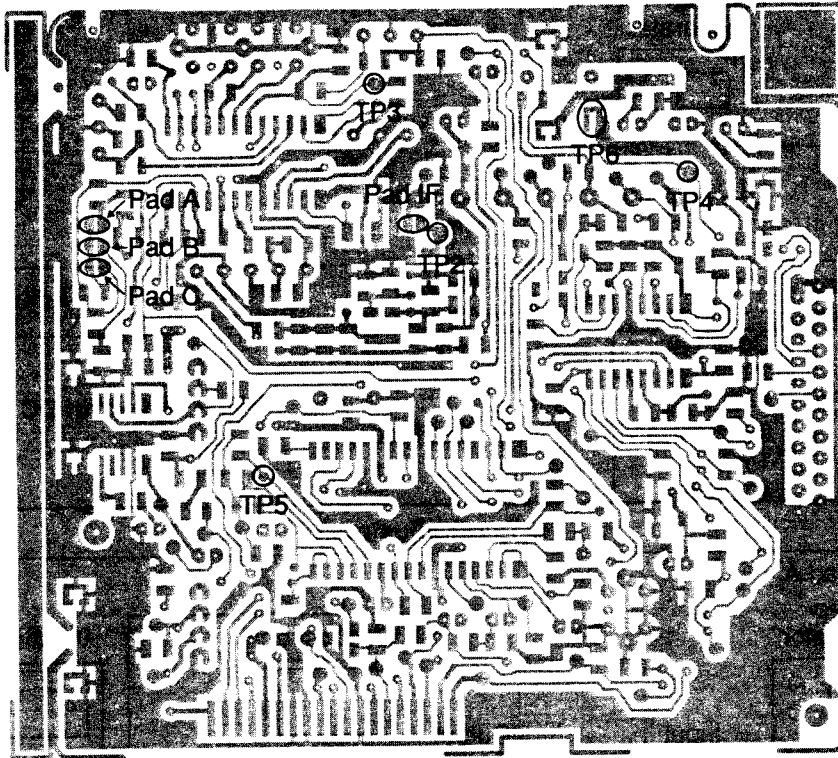
Item	Measuring Instrument
Video detection coil adj.	TV signal generator, Pattern generator, Oscilloscope, Low-pass filter
AFT coil adjustment	Sweep generator, Oscilloscope, Voltmeter
Contrast adjustment	TV signal generator, Pattern generator, Oscilloscope
AGC adjustment	TV signal generator, Pattern generator, IF levelmeter

2) Adjustment and Test Point Locations

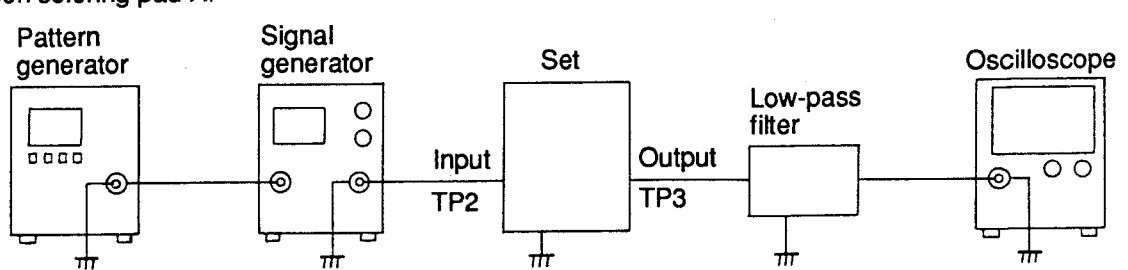
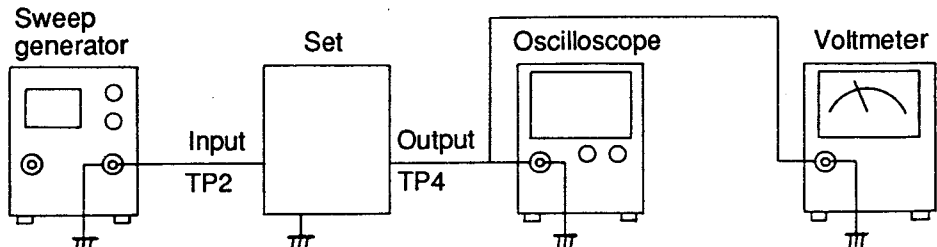
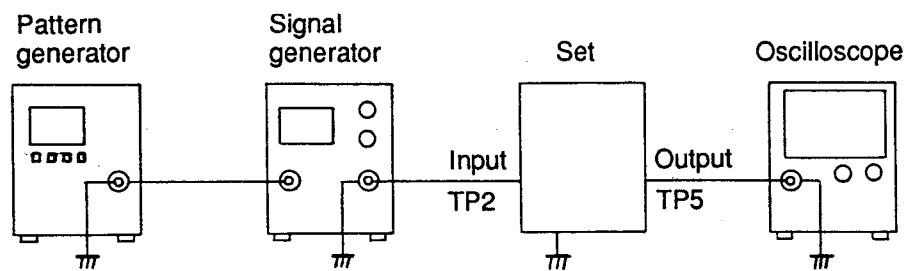
(TOP VIEW)



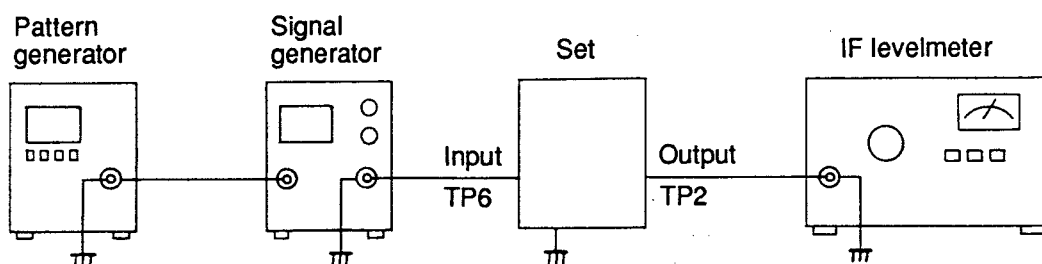
(BOTTOM VIEW)



3) Equipment connection / Procedure

Video detection coil adjustment						
* Open soldering pad A. 						
Input Connection	Input Point	Input Signal	Adjust	Output Connection	Output Point	Adjust for
Pattern generator Signal generator	TP2	Color bar 38.9MHz(TV-1450C,N) 39.5MHz(TV-1450D) 43+5dBμ	T200	Low-pass filter Oscilloscope	TP3	Adjust for DC level at minimum.
AFT coil adjustment						
* Open soldering pad A. 						
Sweep generator	TP2	38.9±5MHz(Sweep) :TV-1450C,N 39.5±5MHz(Sweep) :TV-1450D Marker:38.9(TV1450C,N) Marker:39.5(TV-1450D) 70dBμ	T201	Voltmeter Oscilloscope	TP4	Adjust for $1.8 \pm 0.2V$ reading on voltmeter. Confirm that the marker is at the middle of S-curve on oscilloscope.
Contrast adjustment						
* Open soldering pad A, and grand pad B. 						
Pattern generator signal generator	TP2	Color bar 38.9MHz (TV-1450C,N) 39.5MHz (TV-1450D) 70dBμ	VR300	Oscilloscope	TP5	Adjust step form wave to read $0.8 \pm 0.05 V_{p-p}$.

AGC adjustment



Input Connection	Input Point	Input Signal	Adjust	Output Connection	Output Point	Adjust for
Pattern generator TV signal generator	TP6	Color bar $65 \pm 5 \text{ dB}\mu$	Pads A/B/C	IF levelmeter	TP2	Make adjustment according to the next table with reading the IF levelmeter.

If IF levelmeter reading is:	Pads to be short-circuited.
81 ~ 87 $\text{dB}\mu$	No Pad shorting required.
More than 87 $\text{dB}\mu$	Pad A should be short-circuited.
Less than 81 $\text{dB}\mu$	Pad B should be short-circuited.
If short-circuiting of pads B or C does not set the IF levelmeter within 81 ~ 87 $\text{dB}\mu$	Pad C should be also short-circuited.

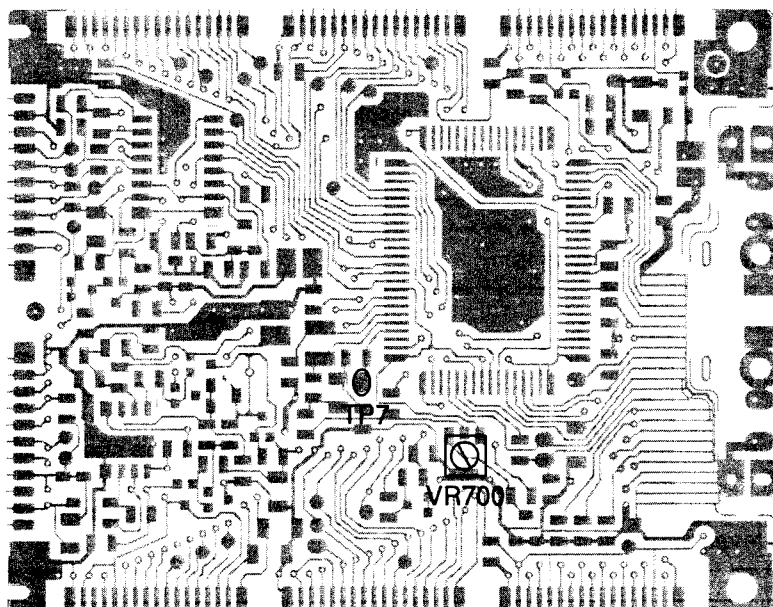
A/D PCB

- 1) Item to be adjusted:

Item	Measuring Instrument
Clock adjustment	Voltmeter

- 2) Adjustment and Test point locations:

(TOP VIEW)



- 3) Equipment connection / Procedure

Clock adjustment						
Input Connection	Input Point	Input Signal	Adjust	Output Connection	Output Point	Adjust for
—	—	—	VR700	Voltmeter	TP7	Adjust for $2.10 \pm 0.05V$ reading on voltmeter.

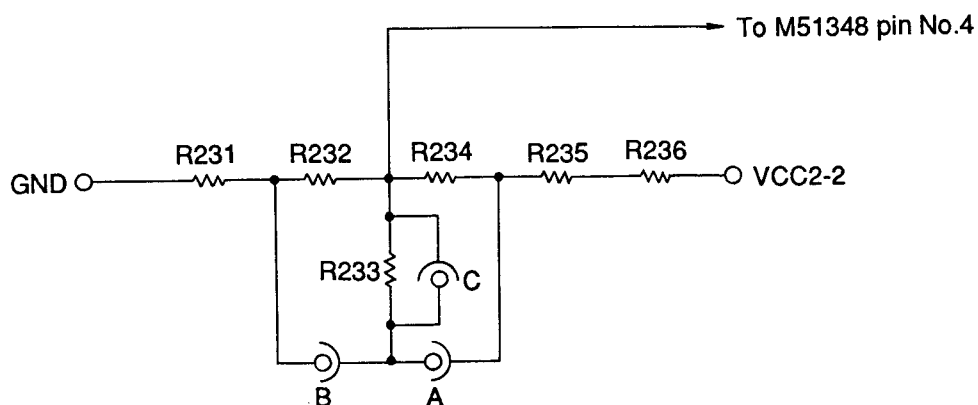
ADJUSTMENT (When appropriate measuring instruments are not available.)

Adjustment point	Adjustment	PCB
VCC 2 voltage	*O Make this adjustment whenever repairing. O Adjust VR100 so that VCC2 is $4.3 \pm 0.02V$	Sub
Video detection coil	*O Make this adjustment when sensitivity or receiving is poor. O Adjust T200 with watching the screen.	Linear
AFT coil	*O Make this adjustment when the auto-tuning does not stop. O Adjust T201 so that the auto-tuning stops.	Linear
Contrast	*O Make this adjustment when the contrast is not good. O Adjust VR300 with watching the screen.	Linear
AGC	*O Make this adjustment when no reception is possible at all or the sensitivity is extremely bad. O Adjust soldering pads A ~ C.	Linear
Clock pulse	*O Make this adjustment when no synchronization is gained. O Adjust VR700 with watching the screen.	A/D

(AGC Adjustment)

By closing or opening the adjustment pads C, D and E, adjust 'Tuner' output pin 2 voltage at 1.2V.

Adjustment pads	Pads condition	AGC voltage
A, B, C	Open	————
B	Close	↘
B, C	Close	↘
A	Close	↗
A, C	Close	↗



TROUBLESHOOTING

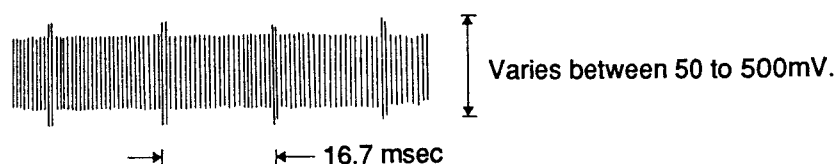
1. No receiving (The power supply works correctly, and each IC receives correct voltages.)

(1) Check the tuner voltage

Pin No.	Terminals	Voltages	Measuring conditions	Next step when NG
2	AGC	1.0 ~ 1.5	None	Go to (3)
3	BU	4.0	Measure the voltage with setting the selector SW to UHF	Replace SW100
4	BT	0.0 ~ 30.0	Same as above	Go to A-1
5 *TV-1450C,N only	BS	33.0	When the indicator is at channel 2~6 ch of VHF.	Go to B-1
6 *TV-1450C,N only	BV	4.0	Measure the voltage with setting the selector SW to VHF	Replace SW100
7	BM	4.0	None	Go to the step of "No voltage"

(2) Measure the collector waveforms of IF Amp. Q200

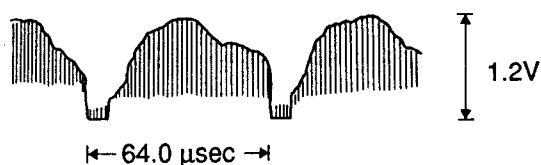
Check that the waveforms as below appear when the indicator does not stop.



If the waveforms does not appear: Replace the tuner.

(3) Check the waveforms at pin no.18 of IC200.

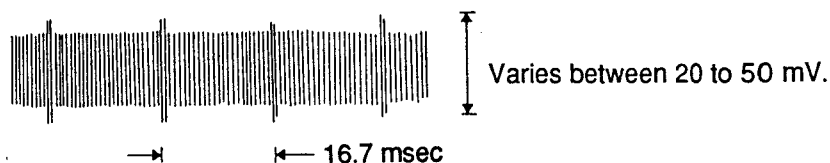
Check that the waveforms as below appears when the indicator passes the receiving channel.



When the waveforms appear: Go to (5).

(4) Measure the waveform at pin no.19 and 20 of IC200.

Check that the waveforms as below appear when the indicator passes the receiving channel.



If the waveforms do not appear: Replace component in order of C268, T200 and IC200.

- (5) Check the voltage at pin no. 17 of IC200.
Check the voltage varies between about 0 to 4V when the indicator does not stop.

When the voltage varies: Go to (7).

- (6) Adjusting the transformer T201.
Mark the initial position, and turn to the right and the left slightly. At this condition, check that voltage amplitude varies at pin no. 17 of IC200.

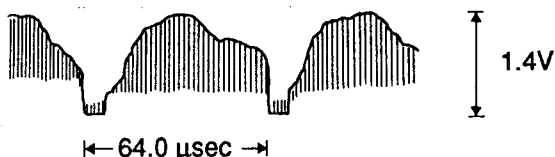
If the amplitude does not vary: Replace components in order of C267 to C273, T201 and IC200.

- (7) Measure the waveform at pin no. 29 of IC300.
Check that the waveform as below appear when the indicator passes the receiving channel.



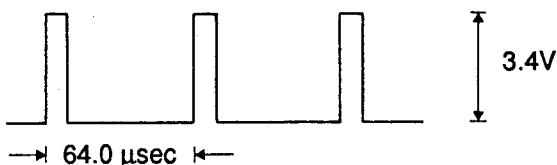
If the waveform do not appear: Check a line cutting from pin no. 18 of IC200 to pin no.29 of IC300, and poor soldering on chip resistors etc.

- (8) Measure the waveforms at pin no.21 to 23 of IC300.
Check the waveforms as below appear when the indicator passes the receiving channel.



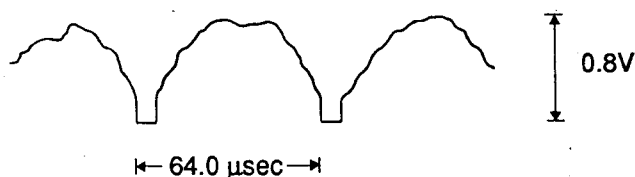
When the waveforms appear: Go to (12).

- (9) Measure the waveforms at pin no. 18 of IC300.
Check the waveforms as below appear when the indicator passes the receiving channel.



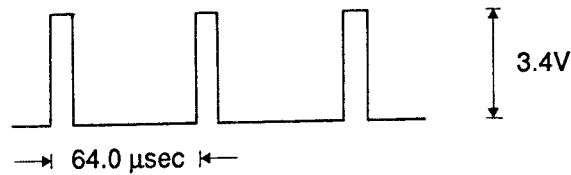
When the waveforms appear: Go to (12).

- (10) Measure the waveforms at pin no. 22 of IC200.
Check the waveforms as below appear when the indicator passes the receiving channel.



If the waveforms do not appear: Check a line cut from pin no. 18 to pin no. 22 of IC200, and poor soldering on chip resistors, etc.

- (11) Measure the waveforms at pin no. 23 of IC200.
Check the waveforms as below appear when the indicator passes the receiving channel.

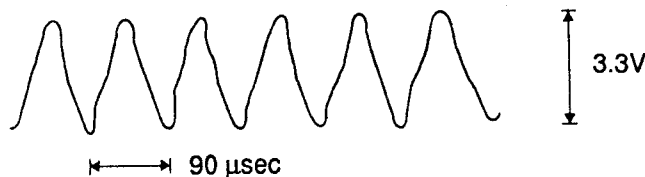


If the waveforms do not appear: Replace IC200 (M51348FP).

- (12) Check that signals C-Sy, AFT and R-G-B from the Linear PCB go to pin no. 25, 70 and 62-64 of IC700 respectively.

If IC700 does not receive signals: Check a signal line cutting or poor soldering on all terminals of IC700.

- (13) Measure the waveforms at pin no. 18 of IC700.
Check the waveforms as below appear.



If no waveforms appear: Check poor soldering on OSC block or replace components L701, D730, or IC700 etc.

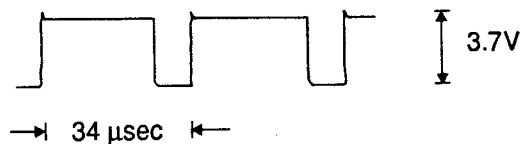
- (14) Measure the voltage pin no. 36 and 37 of IC700.

If one or both is/are GND:

- 1) Check solder bridge on C754 or C755, or replace components.
- 2) Replace the UP/DOWN KEY SW101 or SW102 or IC700.

A-1 Measure the waveforms at pin no. 11 of IC400.

Check that the waveforms as below appear when the indicator does not stop.



If the waveforms do not appear, unsolder pin no. 10 of IC400, and check the waveform at the solder pad again.

- 1) When the waveforms appear: Replace IC400.
- 2) If the waveform do not appear: Check poor soldering on IC700 or replace it.

A-2 Remove R420, and check the voltage at pin no. 14 of IC400 varies between 0 to 30V.

When the voltage varies: Replace the tuner.

If does not vary: Replace IC400.

B-1 Measure the voltage at pin no. 10 of IC400.

Check that the voltage is GND level when the indicator is between 2 to 6 channel.

Check that the voltage is 4 volt level when the indicator is between 7 to 13 channel.

If the voltage is not in above voltage level, unsolder pin no. 10 of IC400, and measure the voltage at the solder pad again.

1) When the voltage appears: Replace IC400.

2) If the voltage does not appear: Check soldering condition of IC700, or replace IC700.

B-2 Measure the voltage at pin no. 15 of IC400.

Check that the voltage is 22V when the indicator is between 2 to 6 channel.

Check that the voltage is GND when the indicator is between 7 to 13 channel.

1) If the voltage appears: Replace the tuner.

2) If the voltage does not appear: Replace IC400.

2. No voltage (Turn off the power switch immediately if a desired voltage does not appear.)

- (1) Check that each voltage appears when the power line to the FL trans unit is cut.

No voltage appears: Defective back-light.

- (2) Check conductivity of D115.

No conductivity: Replace D115.

- (3) Check conductivity between 1 and 2, 8 and 9, 3 and 5, and 3 and 7 without supplying power voltage.

If any does not have conductivity: Replace T100.

- (4) Check that the voltage at pin no. 2 of T100 is 6V.

If the voltage does not appear, unsolder pin no. 1 and 2 of T100, and measure the voltage at solder pad of pin 2 side.

1) If no voltage appears: Replace SW100 or check the line from VCC1-1 of SW100 to pin no. 2 of T100.

2) When the voltage appears: Solder pin no. 1 and 2 of T100, and go to (5).

- (5) Unsolder pin no. 3, 5 and 7 of T100, and check the voltage again.

If no voltage appears: Replace all of Q100 ~ Q102 and D100.

- (6) Solder pin no. 3 of T100, and measure the voltage at pin no. 2.

If no voltage appears: Turn off the power, and check the conductivity of D115.

1) If it is not normal: Replace D110.

2) If it is normal: Replace IC400.

- (7) Solder pin no. 7 of T100, and measure the voltage at pin no. 2.

If the voltage does not appear: Turn off the power, and check the conductivity of D113.

1) If not normal: Replace D113.

2) If normal: Replace IC800.

(8) Solder pin no. 5 of T100 and check the voltage at pin no. 2.

If no voltage appears: Turn off the power, and check the conductivity of D112.

If not normal: Replace D112.

(9) Unsolder L102, and measure the voltage at pin no. 2.

When the voltage appears: Replace components in order of the tuner, IC400 and IC200.

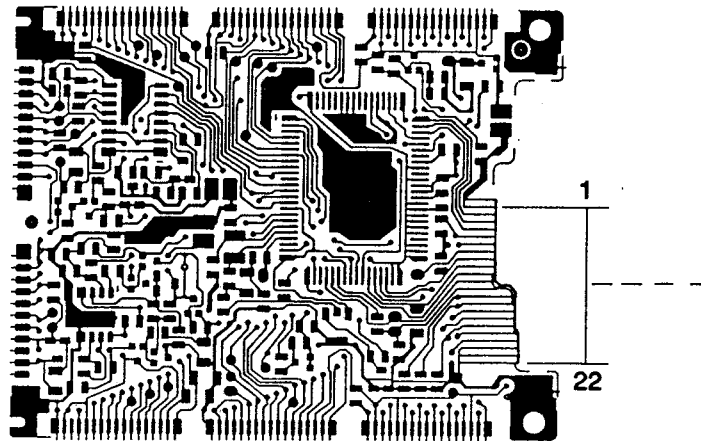
(10) Unsolder L103, and measure the voltage at pin no. 2 of T100.

When the voltage appears: Replace IC300

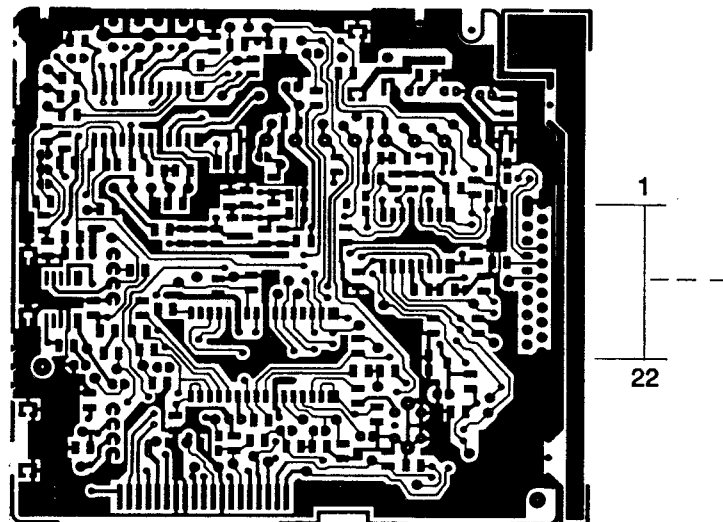
If no voltage appears: Replace IC700.

WIRING DIAGRAM

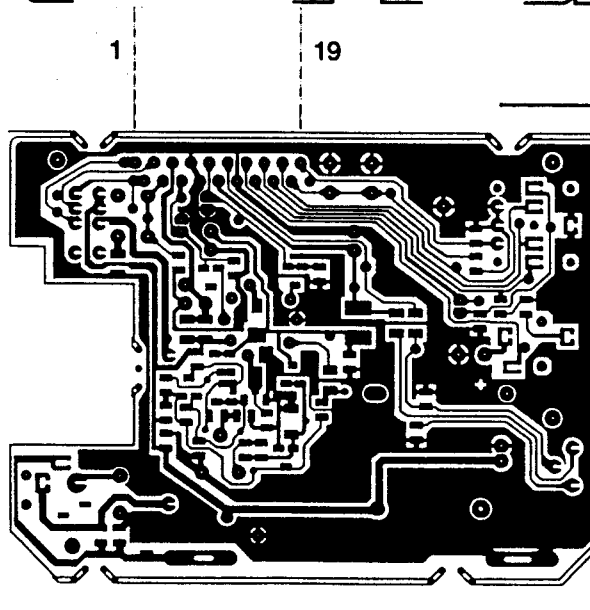
A/D PCB



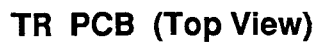
Linear PCB



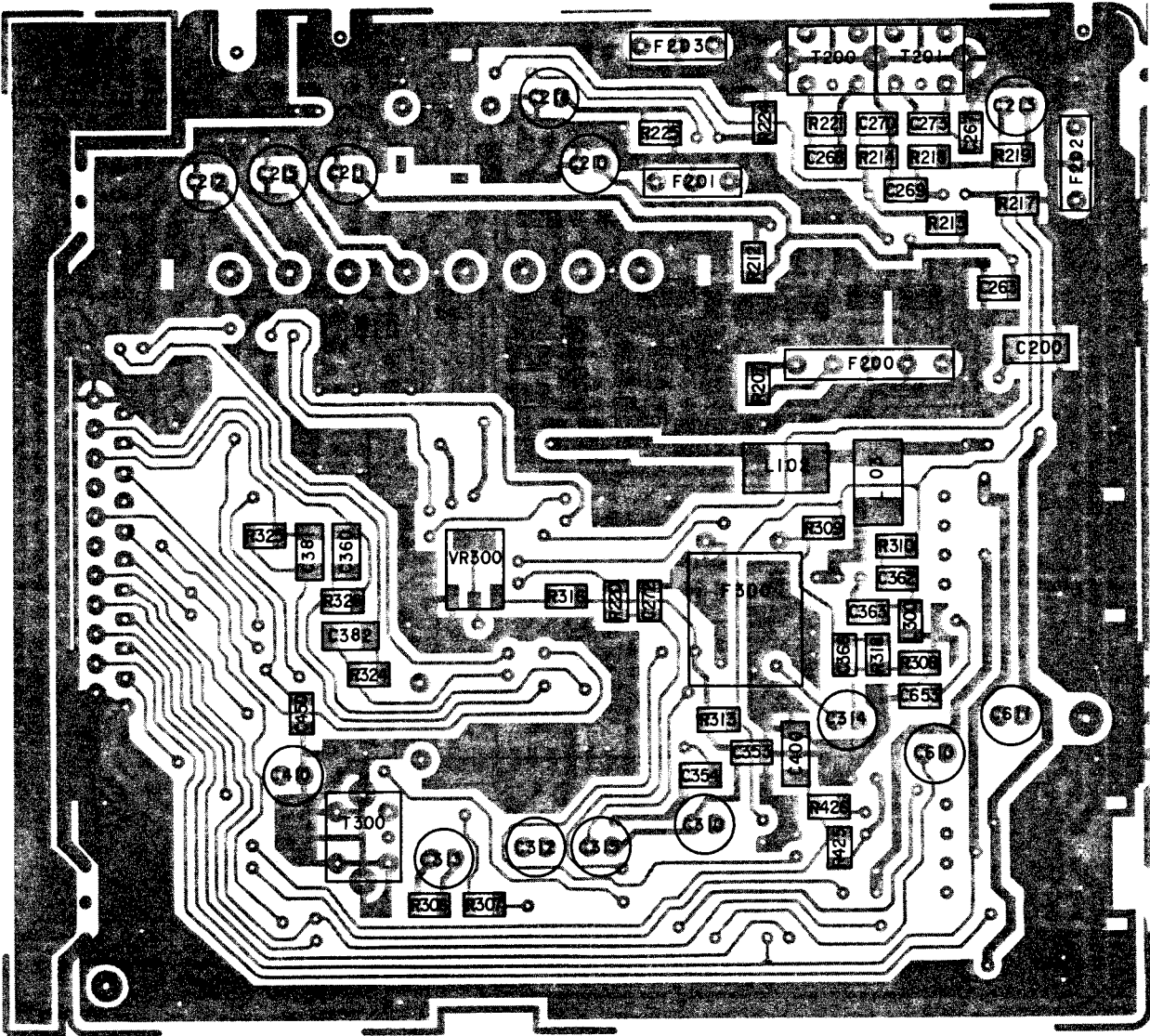
Sub PCB



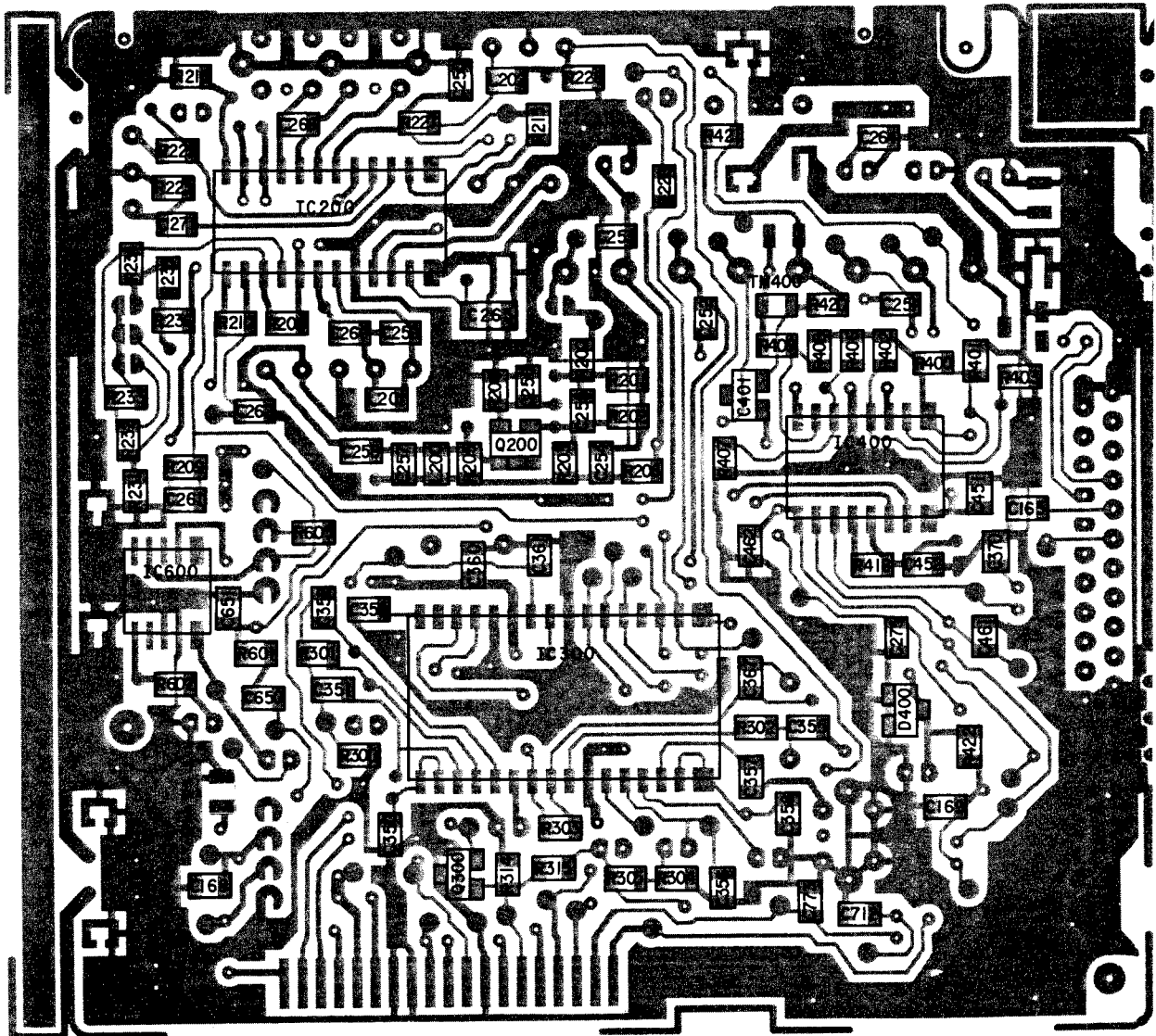
Linear PCB (Top View) TV-1450C,N



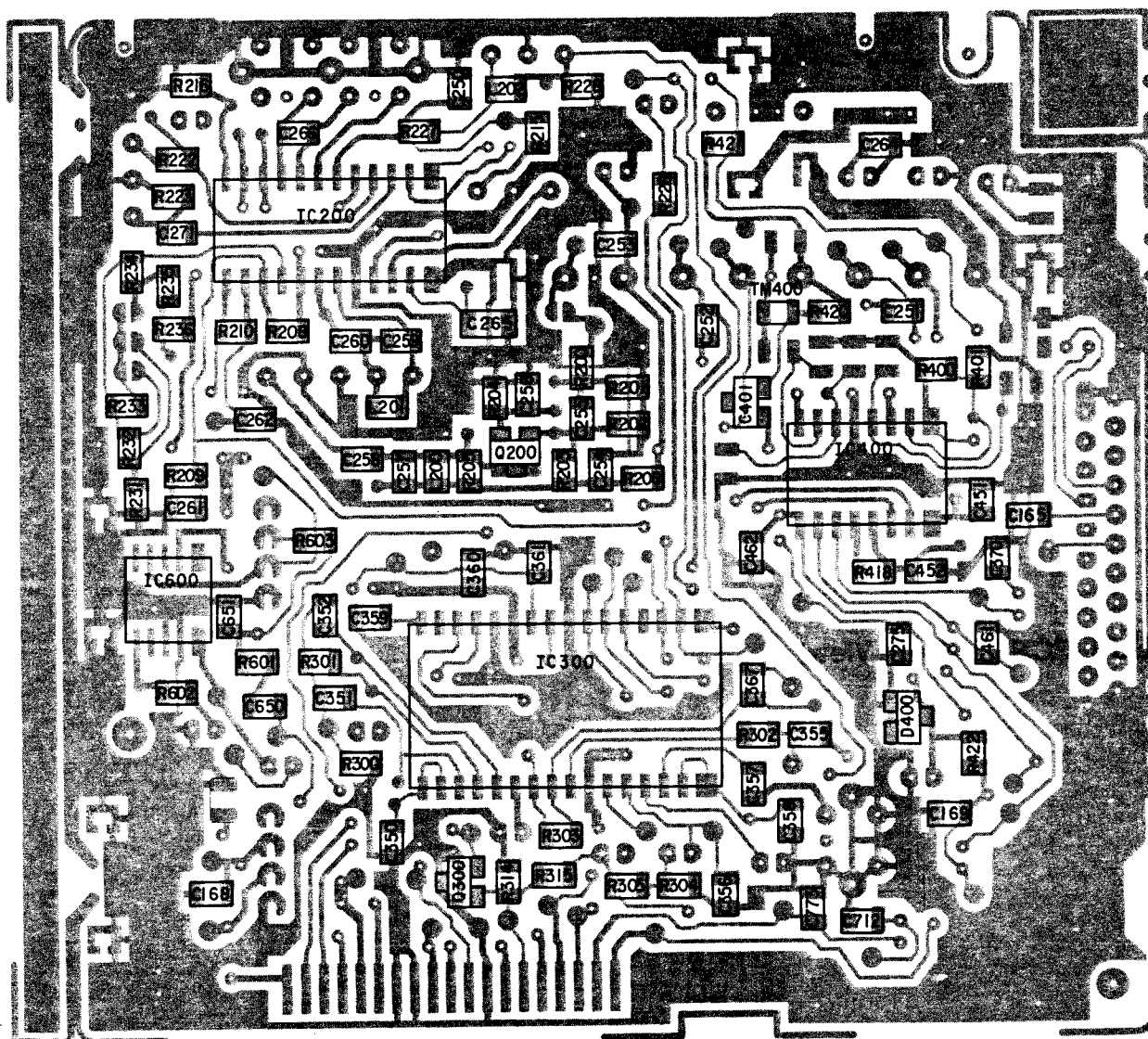
Linear PCB (Top View) TV-1450D



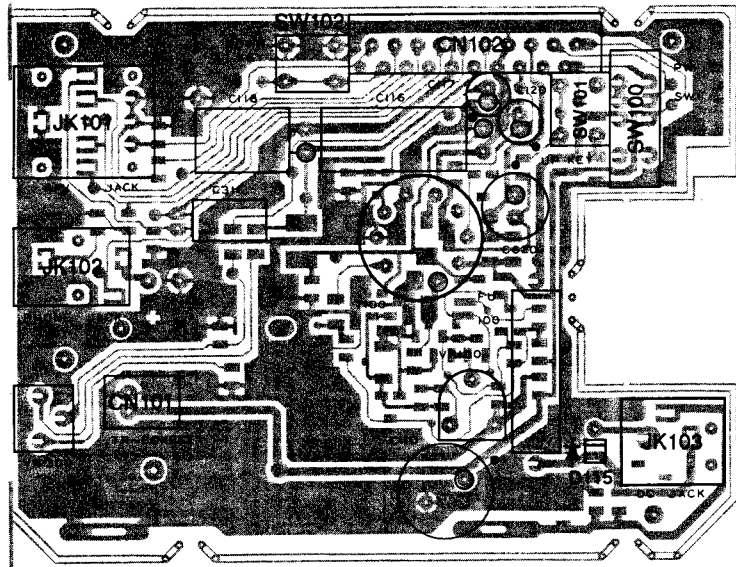
Linear PCB (Bottom View) TV-1450C,N



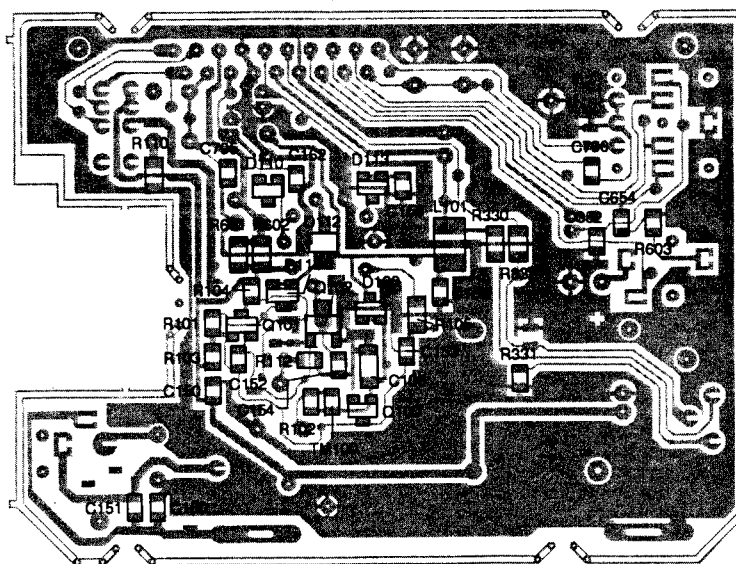
Linear PCB (Bottom View) TV-1450D



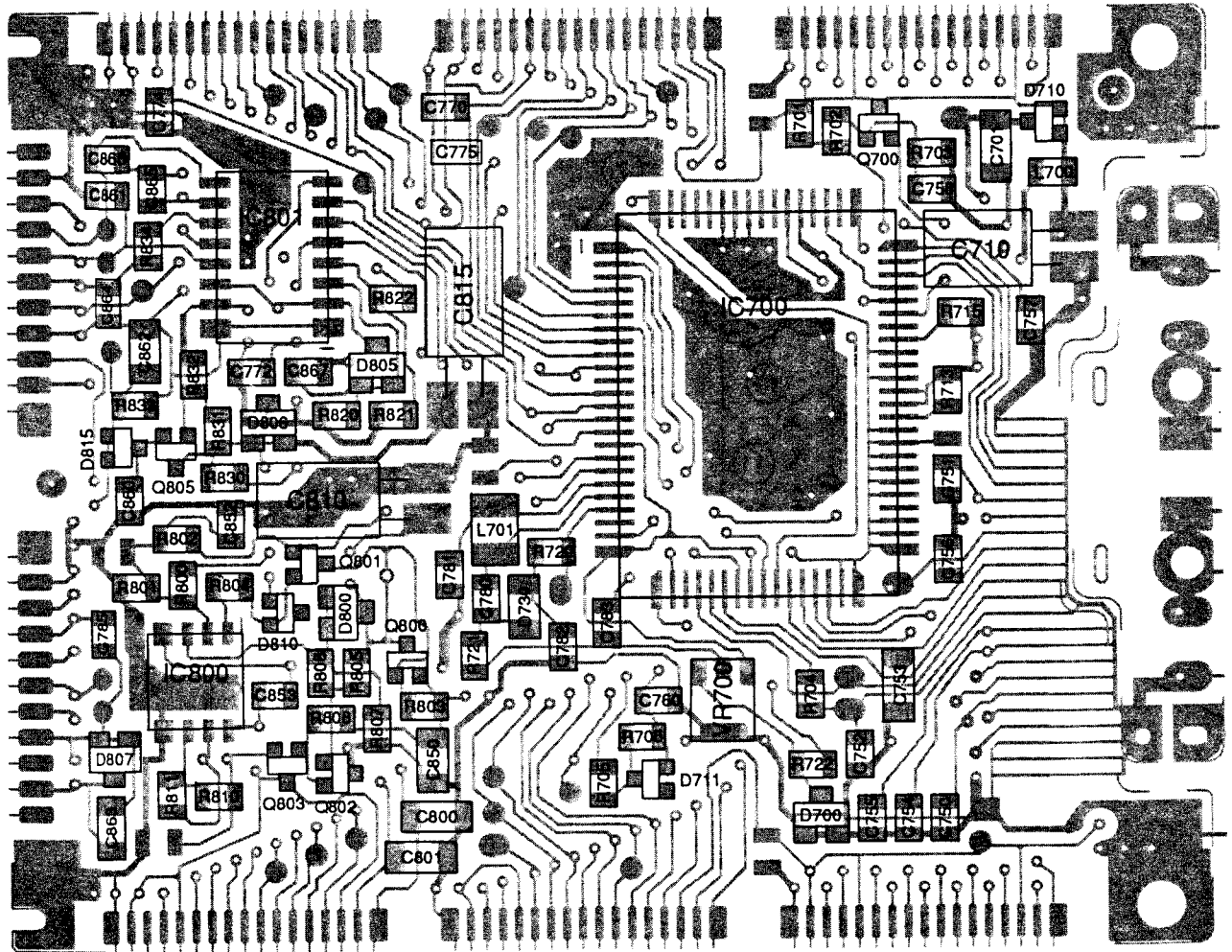
SUB PCB (Top View)



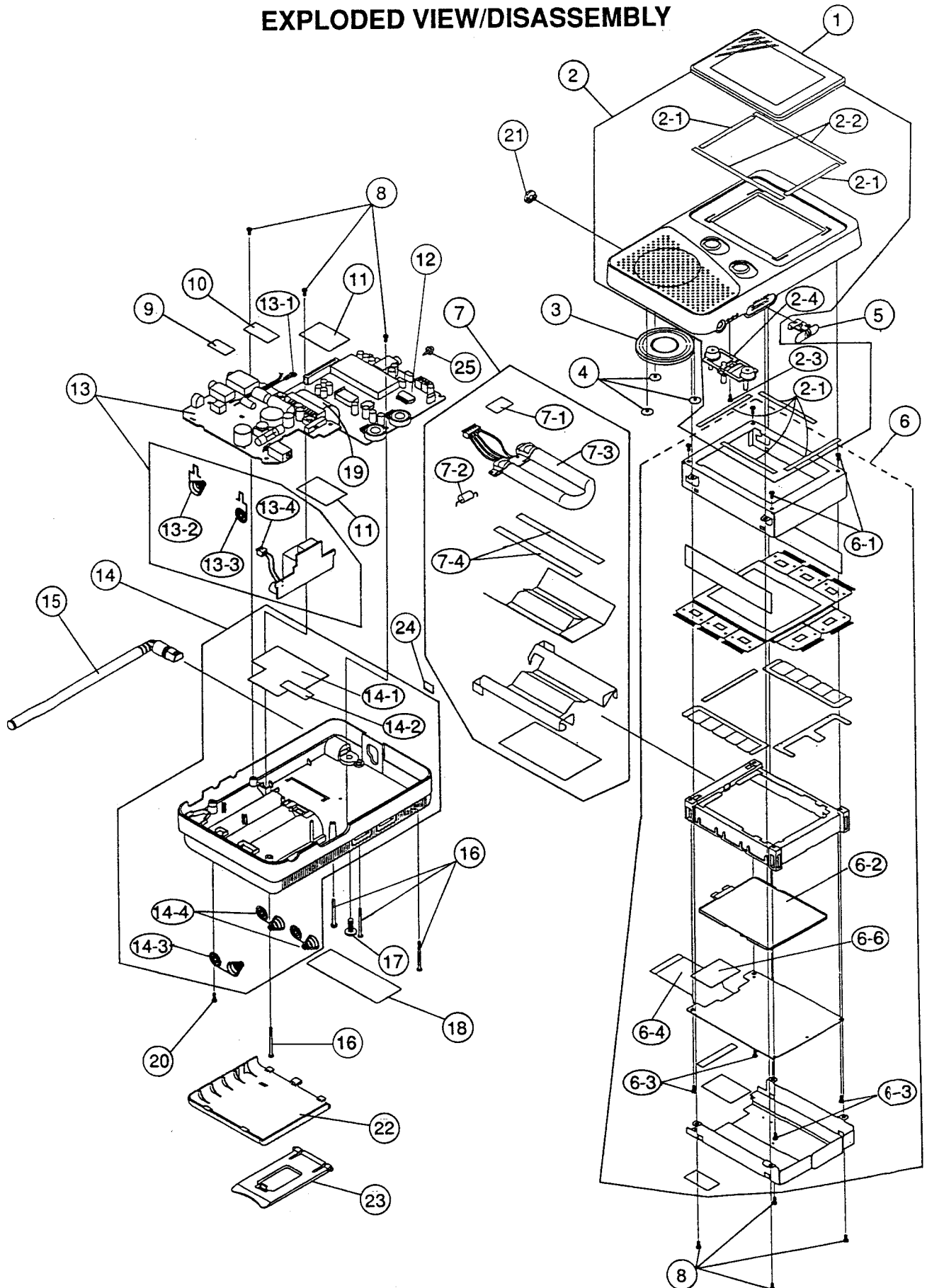
SUB PCB (Bottom View)



A/D PCB (Top View)



EXPLODED VIEW/DISASSEMBLY



ELECTRICAL PARTS LIST

SUB PCB No. 1

item	Code No.	Parts Name	Spec. No.	Q'ty			*	FOB JAPAN Unit Price	Rank
				C	N	D			
Capacitor									
C100	2895 0189	Chip tantalum	ECST0JY335R	1	1	1	10		C
C110	2805 9267	Electrolytic	10RC470-F1	1	1	1	10		C
C116	2805 9274	Electrolytic	6.3RSH-330S32-G7	1	1	1	10		C
C117	2805 8567	Electrolytic	16RC2-10-F1	1	1	1	10		C
C118	2805 9281	Electrolytic	6.3RCS-220-G8	1	1	1	10		C
C120	2805 9323	Electrolytic	50RC2-4R7MS-F1	1	1	1	10		C
C150	2892 0040	Chip	GR40Y5V104Z25PT	1	1	1	10		C
C151	2892 0040	Chip	GR40Y5V104Z25PT	1	1	1	10		C
C152	2897 0189	Chip	GR40W5R682K50PT	1	1	1	20		C
C153	2897 0252	Chip	GR40W5R152K50PT	1	1	1	20		C
C154	2892 0075	Chip	GR40W5R472K50PT	1	1	1	10		C
C158	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C159	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C160	2892 0040	Chip	GR40Y5V104Z25PT	1	1	1	10		C
C162	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C311	2805 9288	Electrolytic	10RC2BP-10-G7	1	1	1	10		C
C382	2892 0296	Chip	GR40CH390J50PT	1	1	1	10		C
C620	2805 9330	Electrolytic	10RC2-100-F1	1	1	1	10		C
C654	2897 0252	Chip	GR40W5R152K50PT	1	1	1	20		C
C795	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C796	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
Diodes									
D100	2360 0966	Chip zener	MA3047-M(TX)	1	1	1	20		C
D110	2390 1302	Chip	MA153A(TX)	1	1	1	10		C
D112	2315 0204	Chip schottoky	MA701-(TX)	1	1	1	10		C
D113	2305 1010	Chip	MC2838-T1	1	1	1	10		C
D114	2305 1010	Chip	MC2838-T1	1	1	1	10		C
D115	2390 1190	Chip	ERA15-01Y	1	1	1	20		C
Inductor									
L101	3013 0161	Chip inductor	NL453232-100K-2-TP	1	1	1	10		C
Transistors									
Q100	2230 7011	Chip transistor	2SD601A-R(TX)	1	1	1	10		C
Q101	2230 7011	Chip transistor	2SD601A-R(TX)	1	1	1	10		C
Q102	2252 0714	Chip transistor	2SD1623S,T-TD	1	1	1	10		C
Resistors									
R101	2797 0028	Chip	ERJ-6GEYJ683V	1	1	1	20		C
R102	2791 0305	Chip	ERJ-6GEYJ472V	1	1	1	20		C
R103	2797 0028	Chip	ERJ-6GEYJ683V	1	1	1	20		C
R104	2791 0378	Chip	ERJ-6GEYJ101V	1	1	1	10		C
R105	2791 0378	Chip	ERJ-8GEYJ101V	1	1	1	10		C
R110	2791 1404	Chip jumper	ERJ-8GEY0R00V	1	1	1	20		C
R112	2792 0110	Chip jumper	ERJ-6GEY0R00V	1	1	1	10		C
R330	2791 0483	Chip	ERJ-8GEYJ473V	1	1	1	10		C
R331	2791 0110	Chip jumper	ERJ-6GEY0R00V	1	1	1	20		C
R332	2791 1404	Chip jumper	ERJ-8GEY0R00V	1	1	1	20		C
R601	2791 0823	Chip	ERJ-8GEYJ220V	1	1	1	10		C
R602	2791 0823	Chip	ERJ-8GEYJ220V	1	1	1	10		C
R603	2791 0696	Chip	ERJ-6GEYJ470V	1	1	1	20		C
Variable Resistors									
VR100	2775 0609	Semi-fixed resistor	RH0615C-222	1	1	1	10		C
VR301	2775 0077	Semi-fixed resistor	H0614D-47KB	1	1	1	20		C
Other Electronic Parts									
CN101	3501 1393	Connector	W-P7902*11	1	1	1	1		C
CN102	3501 4984	Connector	9602S-19L	1	1	1	1		C
FU100	3632 0252	Fuse	ATSCR1.0A	1	1	1	1		C
JK101	3501 3773	Jack (Audio/Video)	HSJ6063-01-410	1	1	1	5		C
JK102	3501 3766	Jack(Phone)	HSJ1417-01-010	1	1	1	10		C

SUB PCB No. 2

item	Code No.	Parts Name	Spec. No.	Q'ty			*	FOB JAPAN Unit Price	Rank
				C	N	D			
JK103	3501 0994	Jack(Power)	HEC1781-01-010	1	1	1	10		C
SW100	3412 0798	Slide switch	ESD-11H231	1	1	1	10		C
SW101	3412 0119	Switch	EVQ-QS204B	1	1	1	20		C
SW102	3412 0119	Switch	EVQ-QS204B	1	1	1	20		C
T100	3065 0294	DC-DC converter	LC12U-17	1	1	1	5		B
TM100	2775 0728	Chip thermistor	N20123BH102K	1	1	1	10		C

Linear PCB No. 1

Item	Code No.	Parts Name	Spec. No.	Q'ty			*	FOB JAPAN Unit Price	Rank
				C	N	D			
Capacitor									
C165	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C168	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C169	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C200	2895 0595	Chip tantalum	ECST0JY225R	1	1	1	10		C
*C210	2805 9316	Electrolytic	EAC-0JKF470-C	1	1	1	10		C
C211	2805 8511	Electrolytic	6.3RC2-47MS-F1	1	1	1	10		C
C212	2805 8511	Electrolytic	6.3RC2-47MS-F1	1	1	1	10		C
C213	2805 9302	Electrolytic	50RC2-R47-F1	1	1	1	10		C
C214	2805 9309	Electrolytic	50RC2-2R2-F1	1	1	1	10		C
C215	2805 9295	Electrolytic	50RC2-R1-F1	1	1	1	10		C
C251	2892 0040	Chip	GR40Y5V104Z25PT	1	1	1	10		C
C254	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C255	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C257	2892 0113	Chip	GR40CH150J50PT	1	1	0	10		C
C257	2897 0350	Chip	GR40CH160J50PT	0	0	1	20		C
C258	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C260	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C261	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C262	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C263	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C265	2892 0844	Chip	GR42-6Y5V474Z16PT	1	1	1	10		C
C266	2897 0133	Chip	GR40CH0R5C50PT	1	1	1	20		C
C267	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C268	2892 0890	Chip	GR40PH560J50PT	1	1	1	10		C
C269	2892 0237	Chip	GR40W5R222K50PT	1	1	1	10		C
C270	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C271	2892 0407	Chip	GR40CH270J50PT	1	1	1	10		C
C272	2892 0091	Chip	GR40W5R223K25PT	1	1	1	10		C
C273	2892 0890	Chip	GR40PH560J50PT	1	1	1	20		C
C275	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
*C310	2805 9316	Electrolytic	ECA-0JKF470-C	1	1	1	10		C
*C312	2805 9309	Electrolytic	50RC2-2R2-F1	1	1	1	10		C
*C313	2805 9302	Electrolytic	50RC2-R47-F1	1	1	1	10		C
*C314	2805 9302	Electrolytic	50RC2-R47-F1	1	1	1	10		C
C315	2805 8574	Electrolytic	50RC2-1-F1	1	1	1	10		C
C350	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C351	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C352	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C353	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C354	2892 0318	Chip	GR40CH820J50PT	1	1	1	10		C
C355	2892 0113	Chip	GR40CH150J50PT	1	1	1	10		C
C356	2892 0016	Chip	GR40W5R102K50PT	1	1	1	10		C
C357	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C358	2892 0326	Chip	GR40CH101J50PT	1	1	1	10		C
C359	2897 0126	Chip	GR40CH221J50PT	1	1	1	20		C
C360	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	20		C
C361	2892 0113	Chip	GR40CH150J50PT	1	1	1	20		C
C362	2892 0407	Chip	GR40CH270J50PT	1	1	1	20		C
C363	2892 0407	Chip	GR40CH270J50PT	1	1	1	10		C
C366	2897 0126	Chip	GR40CH221J50PT	1	1	1	20		C
C367	2892 0407	Chip	GR40CH270J50PT	1	1	1	10		C
C370	2897 0126	Chip	GR40CH221J50PT	1	1	1	20		C
C380	2897 0140	Chip	GR42-6Y5V224Z50PT	1	1	1	20		C
C381	2897 0140	Chip	GR42-6Y5V224Z50PT	1	1	1	20		C
C382	2897 0140	Chip	GR42-6Y5V224Z50PT	1	1	1	20		C
C410	2805 8574	Electrolytic	50RC2-1-F1	1	1	1	10		C
C450	2892 0040	Chip	GR40Y5V104Z25PT	1	1	1	10		C

Linear PCB No. 2

item	Code No.	Parts Name	Spec. No.	Q'ty			*	FOB JAPAN Unit Price	Rank
				C	N	D			
C451	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C452	2892 0229	Chip	GR40W5R103K25PT	1	1	1	10		C
C461	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C462	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C610	2805 8511	Electrolytic	6.3RC2-47MS-F1	1	1	1	10		C
C611	2805 9050	Electrolytic	6.3RC2-22-F1	1	1	1	10		C
C650	2892 0040	Chip	GR40Y5V104Z25PT	1	1	1	10		C
C651	2892 0075	Chip	GR40W5R472K50PT	1	1	1	10		C
C772	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C773	2892 0040	Chip	GR40Y5V104Z25PT	1	1	1	10		C
Diodes									
D400	2360 1344	Chip zener diode	MA3330-M (TX)	1	1	1	10		C
D401	2315 0212	Chip diode	MA153-(TX)	1	1	1	20		C
Filters and Traps									
F200	3025 0189	SAW filter	SAF38.9MZ60Z	1	1	0	1		C
F200	3025 0210	SAW filter	SAF39.5MZ60Z	0	0	1	1		C
F201	3025 0511	SIF Filter	SFSL5.5MD12	1	1	0	10		C
F201	3025 0525	SIF Filter	SFSL6.0MD12	0	0	1	10		C
F202	3851 0959	Ceramic discriminator	CDSL5.5MC30A	1	1	0	10		C
F202	3851 0966	Ceramic discriminator	CDSL6.0MC30A	0	0	1	5		C
F203	3850 1372	SIF trap	TPS5.5MB	1	1	0	10		C
F203	3851 0553	SIF trap	TPS6.0MB	0	0	1	10		C
F300	3850 1380	Chroma trap	TPS4.43MJ	1	1	1	5		C
IC and LSI									
IC200	2120 6539	Linear IC	M51348FP	1	1	1	1		B
IC300	2114 0350	Linear IC	M51403FP	1	1	1	1		B
IC400	2114 0182	Linear IC	MSC1169MS-K	1	1	1	1		B
IC600	2114 1204	Linear IC	TA7368F-T1	1	1	1	1		B
Inductors									
L102	3013 0021	Chip inductor	NL453232-101K-2-TP	1	1	1	10		C
L103	3013 0021	Chip inductor	NL453232-101K-2-TP	1	1	1	10		C
L200	3013 0686	Chip inductor	MLF2012DR82K-TP	1	1	1	10		C
L202	3013 0749	Chip inductor	MLF2012E120K-TP	1	1	1	10		C
L300	3013 0735	Chip inductor	MLF2012C220K-TP	1	1	1	10		C
Transistors									
Q200	2252 0707	Chip	2SC4238-(TX)	1	1	1	10		C
Q300	2200 4352	Chip	2SA1235F-T1	1	1	1			C
Resistors									
R200	2791 0688	Chip	ERJ-6GEYJ220V	1	1	1	20		C
R201	2791 0378	Chip	ERJ-6GEYJ101V	1	1	1	10		C
R202	2791 0720	Chip	ERJ-6GEYJ222V	1	1	1	20		C
R203	2791 2095	Chip	ERJ-6GEYJ682V	1	1	1	20		C
R204	2791 0688	Chip	ERJ-6GEYJ220V	1	1	1	20		C
R205	2791 0831	Chip	ERJ-6GEYJ681V	1	1	1	20		C
R206	2791 1161	Chip	ERJ-6GEYJ151V	1	1	0	20		C
R206	2791 1603	Chip	ERJ-6GEYJ221V	0	0	1	20		C
R207	2791 0734	Chip	ERJ-6GEYJ272V	1	1	1	20		C
R208	2791 0313	Chip	ERJ-6GEYJ103V	1	1	1	10		C
R209	2791 0305	Chip	ERJ-6GEYJ472V	1	1	1	20		C
R210	2791 0720	Chip	ERJ-6GEYJ222V	1	1	1	10		C
R212	2791 0696	Chip	ERJ-6GEYJ470V	1	1	1	20		C
R213	2791 1901	Chip	ERJ-6GEYJ184V	1	1	1	20		C
R214	2797 0028	Chip	ERJ-6GEYJ683V	1	1	1	20		C
R215	2791 0815	Chip	ERJ-6GEYJ102V	1	1	0	10		C
R215	2797 0014	Chip	ERJ-6GEYJ821V	0	0	1	20		C
R216	2791 0607	Chip	ERJ-6GEYJ333V	1	1	1	10		C
R217	2791 0750	Chip	ERJ-6GEYJ223V	1	1	1	20		C
R218	2791 1420	Chip	ERJ-6GEYJ331V	1	1	1	20		C

Linear PCB No. 3

item	Code No.	Parts Name	Spec. No.	Q'ty			*	FOB JAPAN Unit Price	Rank
				C	N	D			
R219	2791 0777	Chip	ERJ-6GEYJ104V	1	1	1	10		C
R220	2791 0720	Chip	ERJ-6GEYJ222V	1	1	1	20		C
R221	2791 0580	Chip	ERJ-6GEYJ392V	1	1	1	10		C
R222	2791 1131	Chip	ERJ-6GEYJ271V	1	1	1	20		C
R223	2791 2176	Chip	ERJ-6GEYJ471V	1	1	1	20		C
R224	2791 2095	Chip	ERJ-6GEYJ682V	1	1	1	20		C
R225	2791 2109	Chip	ERJ-6GEYJ393V	1	1	1	20		C
R226	2792 0110	Chip jumper	ERJ-6GEY0R00V	1	1	1	10		C
R227	2791 1420	Chip	ERJ-6GEYJ331V	1	1	1	20		C
R228	2791 0720	Chip	ERJ-6GEYJ222V	1	1	1	20		C
R231	2797 0028	Chip	ERJ-6GEYF683V	1	1	1	20		C
R232	2791 2079	Chip	ERJ-6GEYJ562V	1	1	1	20		C
R233	2791 0734	Chip	ERJ-6GEYJ272V	1	1	0	20		C
R233	2791 1170	Chip	ERJ-6GEYJ182V	0	0	1	20		C
R234	2791 1170	Chip	ERJ-6GEYJ182V	1	1	0	20		C
R234	2791 1650	Chip	ERJ-6GEYJ122V	0	0	1	20		C
R235	2797 1449	Chip	ERJ-6GEYF153V	1	1	1	20		C
R236	2792 0110	Chip jumper	ERJ-6GEY0R00V	1	1	1	20		C
R300	2791 2079	Chip	ERJ-6GEYJ562V	1	1	1	20		C
R301	2791 2079	Chip	ERJ-6GEYJ562V	1	1	1	20		C
R302	2791 0712	Chip	ERJ-6GEYJ152V	1	1	1	20		C
R303	2791 1625	Chip	ERJ-6GEYJ391V	1	1	1	20		C
R304	2791 2095	Chip	ERJ-6GEYJ682V	1	1	1	20		C
R305	2791 2095	Chip	ERJ-6GEYJ682V	1	1	1	20		C
R306	2791 2052	Chip	ERJ-6GEYJ224V	1	1	1	20		C
R307	2791 2109	Chip	ERJ-6GEYJ393V	1	1	1	20		C
R308	2791 0815	Chip	ERJ-6GEYJ102V	1	1	1	10		C
R309	2791 1625	Chip	ERJ-6GEYJ391V	1	1	1	20		C
R310	2791 0572	Chip	ERJ-6GEYJ101V	1	1	1	10		C
R313	2791 0831	Chip	ERJ-6GEYJ681V	1	1	1	20		C
R314	2791 2079	Chip	ERJ-6GEYJ562V	1	1	1	20		C
R315	2791 0750	Chip	ERJ-6GEYJ223V	1	1	1	20		C
R316	2791 0313	Chip	ERJ-6GEYJ103V	1	1	1	10		C
R318	2791 0720	Chip	ERJ-6GEYJ222V	1	1	1	20		C
R324	2791 0607	Chip	ERJ-6GEYJ333V	1	1	1	10		C
R325	2791 0607	Chip	ERJ-6GEYJ333V	1	1	1	10		C
R326	2791 0607	Chip	ERJ-6GEYJ333V	1	1	1	10		C
R400	2791 1390	Chip	ERJ-6GEYJ473V	1	1	1	20		C
R401	2791 0866	Chip	ERJ-6GEYJ334V	1	1	1	10		C
R402	2791 1560	Chip	ERJ-6GEYJ394V	1	1	0	20		C
R403	2791 0866	Chip	ERJ-6GEYJ334V	1	1	0	20		C
R406	2791 0615	Chip	ERJ-6GEYJ154V	1	1	0	20		C
R407	2791 0866	Chip	ERJ-6GEYJ334V	1	1	0	20		C
R408	2791 1560	Chip	ERJ-6GEYJ394V	1	1	0	20		C
R409	2791 0769	Chip	ERJ-6GEYJ563V	1	1	0	20		C
R418	2791 1579	Chip	ERJ-6GEYJ474V	1	1	1	10		C
R420	2791 0750	Chip	ERJ-6GEYJ223V	1	1	1	20		C
R421	2797 1015	Chip	ERJ-6GEYK225V	1	1	1	20		C
R422	2791 0580	Chip	ERJ-6GEYJ392V	1	1	1	10		C
R425	2792 0110	Chip jumper	ERJ-6GEY0R00V	0	0	1	10		C
R426	2792 0110	Chip jumper	ERJ-6GEY0R00V	1	1	1	10		C
R601	2791 1595	Chip	ERJ-6GEYJ153V	1	1	1	20		C
R602	2791 1131	Chip	ERJ-6GEYJ271V	1	1	1	20		C
R603	2791 1633	Chip	ERJ-6GEYJ123V	1	1	0	20		C
R603	2792 0110	Chip jumper	ERJ-6GEY0R00V	0	0	1	20		C
Variable Resistors									
VR300	2775 0350	Semi-fixed resistor	EVM-6PSW00B24	1	1	1	10		C
VR600	2765 0462	Volume	RK09H11T-50KB	1	1	1	5		C

Linear PCB No. 4

Item	Code No.	Parts Name	Spec. No.	Q'ty			*	FOB JAPAN Unit Price	Rank
				C	N	D			
VR800	2765 0588	Volume	RK09J11T-20KB	1	1	1	5		C
Other Electronic Parts									
CN100	3501 3227	Connector	52030-2220	1	1	1	5		C
H300	2590 0427	Crystal oscillator	NR-18	1	1	1	1		C
JK100	3501 3766	Jack	HSJ1417-01-010	1	1	1	10		C
T200	3841 0700	Coil	5KAC-03A	1	1	1			C
T201	3841 0700	Coil	5KAC-03A	1	1	1			C
TU	1013 5315	Tuner	TEPE5-01	1	1	0	1		C
TU	1013 5525	Tuner	TEPB-02	0	0	1	1		C
TM400	2775 0735	Chip thermistor	N20124CH154K	1	1	1	10		C

A/D PCB No. 1

Item	Code No.	Parts Name	Spec. No.	Q'ty			*	FOB JAPAN Unit Price	Rank
				C	N	D			
Capacitor									
C701	2895 0189	Chip tantalum	ECST0JY335R	1	1	1	10		C
C710	2805 8336	Electrolytic	6.3RC2-47MS-G11	1	1	1	20		C
C750	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C751	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C752	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C753	2892 0350	Chip	GR42-6Y5V103Z50PT	1	1	1	20		C
C754	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C755	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C756	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C757	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C758	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C760	2892 0229	Chip	GR40W5R103K25PT	1	1	1	10		C
C770	2892 0016	Chip	GR40W5R102K50PT	1	1	1	10		C
C772	2892 0016	Chip	GR40W5R102K50PT	1	1	1	10		C
C774	2892 0016	Chip	GR40W5R102K50PT	1	1	1	10		C
C775	2897 0938	Chip	GR42-6W5R331K50PT	1	1	1	10		C
C780	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C781	2897 0469	Chip	GR40UJ470J50PT	1	1	1	20		C
C782	2892 0016	Chip	GR40W5R102K50PT	1	1	1	10		C
C783	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C785	2892 0016	Chip	GR40W5R102K50PT	1	1	1	10		C
C800	2895 0189	Chip tantalum	ECST0JY335R	1	1	1	10		C
C801	2895 0189	Chip tantalum	ECST0JY335R	1	1	1	10		C
C810	2801 8316	Electrolytic	50RC2-4R7MS-G12	1	1	1	10		C
C815	2805 2430	Electrolytic	16RC2-10-G11	1	1	1	20		C
C850	2897 0140	Chip	GR42-6Y5V224Z50PT	1	1	1	20		C
C852	2892 0040	Chip	GR40Y5V104Z25PT	1	1	1	10		C
C853	2892 0040	Chip	GR40Y5V104Z25PT	1	1	1	10		C
C860	2892 0059	Chip	GR40Y5V103Z50PT	1	1	1	10		C
C861	2892 0016	Chip	GR40W5R102K50PT	1	1	1	10		C
C862	2897 0140	Chip	GR42-6Y5V224Z50PT	1	1	1	20		C
C863	2892 0156	Chip	GR42-6Y5V104Z50PT	1	1	1	10		C
C864	2892 0326	Chip	GR40CH101J50PT	1	1	1	10		C
C865	2897 0847	Chip	GR40SL471J50PT	1	1	1	10		C
C866	2897 0847	Chip	GR40SL471J50PT	1	1	1	10		C
*C867	2897 0012	Chip	GR40Y5V683Z50PT	1	1	1	10		C
C870	2892 0016	Chip	GR40W5R102K50PT	1	1	1	10		C
C871	2892 0016	Chip	GR40W5R102K50PT	1	1	1	10		C
Diodes									
D700	2360 0854	Chip zener	MA3100-M(TX)	1	1	1	20		C
D710	2390 1183	Chip	MA142WK-(TX)	1	1	1	10		C
D711	2390 1183	Chip	MA142WK-(TX)	1	1	1	10		C
D730	2305 1079	Vari. cap.	1SV167-T1	1	1	1	10		C
D800	2360 1547	Chip zener	MA3360-M(TX)	1	1	1	10		C
D805	2360 0854	Chip zener	MA3100-M(TX)	1	1	1	20		C
D806	2360 1351	Chip zener	MA3043-M(TX)	1	1	1	10		C
D807	2315 0123	Chip zener	MA3051-M(TX)	1	1	1	10		C
D810	2390 0735	Chip schottoky	MA143-(TX)	1	1	1	20		C
D815	2390 1183	Chip	MA142WK-(TX)	1	1	1	10		C
IC and LSI									
IC700	2010 5999	LSI	MSM6348GS-K	1	1	1	1		B
IC800	2116 0021	OP AMP	BA10358F	1	1	1	10		B
IC801	2010 4382	LSI	MSM6362MS-K	1	1	1	1		B
Inductors									
L700	3013 0168	Chip inductor	NL322522 -470K-TP	1	1	1	10		C
L701	3013 0763	Chip inductor	NL322522-100J-TP	1	1	1	10		C

A/D PCB No. 2

A/D PCB No. 2									
item	Code No.	Parts Name	Spec. No.	Q'ty			*	FOB JAPAN Unit Price	Rank
				C	N	D			
Transistors									
Q700	2253 0133	Chip	2SD1819A-R(TX)	1	1	1	20		C
Q800	2251 0189	Chip	2SB1218A-R	1	1	1	20		C
Q801	2253 0133	Chip	2SD1819A-R(TX)	1	1	1	20		C
Q802	2251 0189	Chip	2SB1218A-R	1	1	1	20		C
Q803	2253 0133	Chip	2SD1819A-R(TX)	1	1	1	20		C
Q805	2251 0189	Chip	2SB1218A-R	1	1	1	20		C
Resistors									
R701	2791 1595	Chip	ERJ-6GEYJ153V	1	1	1	20		C
R702	2791 0815	Chip resistor	ERJ-6GEYJ102V	1	1	1	10		C
R703	2791 0313	Chip resistor	ERJ-6GEYJ103V	1	1	1	10		C
R704	2791 2079	Chip	ERJ-6GEYJ562V	1	1	1	20		C
R705	2791 0599	Chip	ERJ-6GEYJ822V	1	1	1	10		C
R706	2791 2052	Chip	ERJ-6GEYJ224V	1	1	1	20		C
R713	2792 0110	Chip jumper	ERJ-6GEY0R00V	1	1	1	10		C
R715	2791 1131	Chip resistor	ERJ-6GEYJ271V	1	1	1	20		C
R720	2791 2079	Chip	ERJ-6GEYJ562V	1	1	1	20		C
R721	2791 0777	Chip resistor	ERJ-6GEYJ104V	1	1	1	10		C
R722	2791 0615	Chip	ERJ-6GEYF154V	1	1	1	10		C
R800	2791 2109	Chip	ERJ-6GEYJ393V	1	1	1	20		C
R801	2791 1390	Chip	ERJ-6GEYJ473V	1	1	1	10		C
R802	2791 0769	Chip	ERJ-6GEYJ563V	1	1	1	20		C
R803	2791 1595	Chip	ERJ-6GEYJ153V	1	1	1	20		C
R804	2791 0750	Chip	ERJ-6GEYJ223V	1	1	1	20		C
R805	2791 0615	Chip	ERJ-6GEYJ154V	1	1	1	20		C
R806	2797 1491	Chip resistor	ERJ-6GEYF103V	1	1	1	20		C
R807	2797 1491	Chip resistor	ERJ-6GEYF103V	1	1	1	20		C
R808	2791 0769	Chip	ERJ-6GEYJ563V	1	1	1	20		C
R810	2797 1491	Chip resistor	ERJ-6GEYF103V	1	1	1	20		C
R811	2797 1491	Chip resistor	ERJ-6GEYF103V	1	1	1	20		C
R820	2791 0615	Chip	ERJ-6GEYJ154V	1	1	1	10		C
R821	2791 0750	Chip	ERJ-6GEYJ223V	1	1	1	20		C
R822	2791 0750	Chip	ERJ-6GEYJ223V	1	1	1	20		C
R830	2791 1650	Chip	ERJ-6GEYJ122V	1	1	1	20		C
R831	2791 0313	Chip resistor	ERJ-6GEYJ103V	1	1	1	10		C
R832	2791 0305	Chip	ERJ-6GEYJ472V	1	1	1	20		C
R833	2791 0777	Chip resistor	ERJ-6GEYJ104V	1	1	1	10		C
R834	2791 0815	Chip resistor	ERJ-6GEYJ102V	1	1	1	10		C
Variable Resistors									
VR700	2775 0938	Semi-fixed resistor	EVM-1QSW30B15	1	1	1	10		C

TR PCB

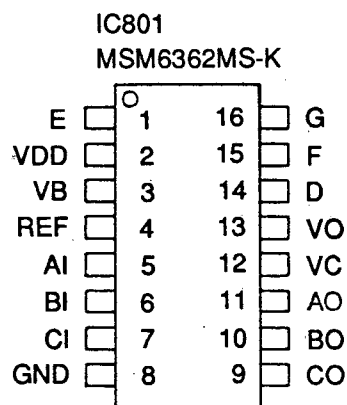
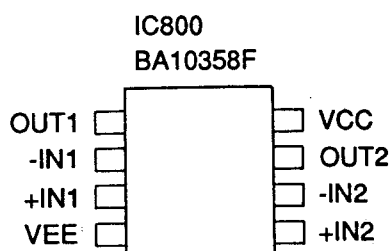
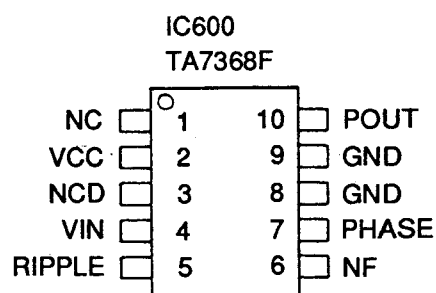
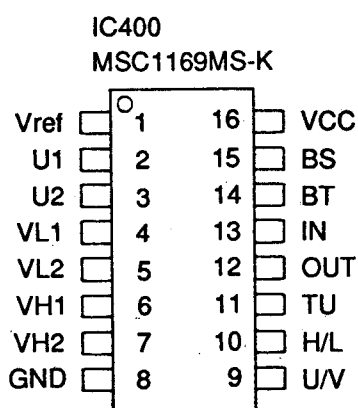
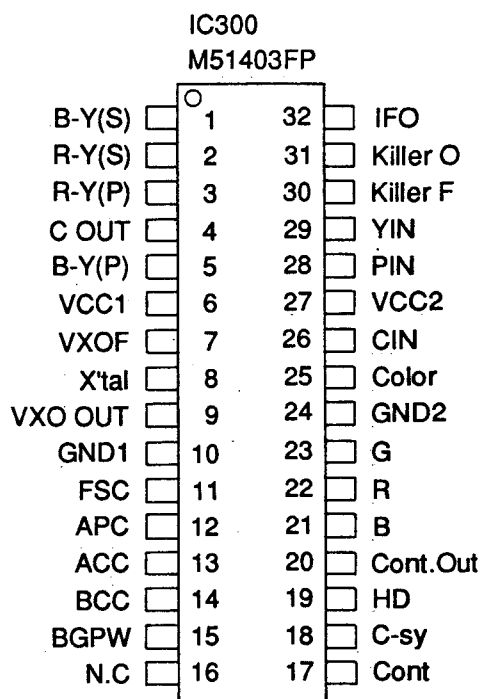
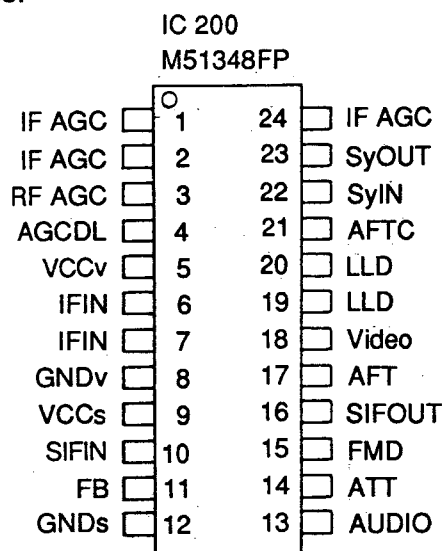
Item	Code No.	Parts Name	Spec. No.	Q'ty				*	FOB JAPAN Unit Price	Rank
				C	N	D				
Capacitor										
*C910	2845 1183	Electrolytic (OS)	10SC10M	1	1	1	10			C
C952	2820 3268	TF capacitor	ECQ-V1H154JZ	1	1	1	10			C
C953	2813 2408	Ceramic capacitor	DE0705SL101J2K	1	1	1	10			C
Coil										
L900	3013 0574	Choke coil	TSL0707-101KR66	1	1	1	5			C
Transistor										
*Q900	2253 0308	Chip	2SD1119-R(TX)	1	1	1	10			C
*Q901	2253 0308	Chip	2SD1119-R(TX)	1	1	1	10			C
Resistors										
*R901	2791 1404	Chip jumper	ERJ-8GEY0R00V	1	1	1	20			C
R900	2791 0840	Chip	ERJ-8GEYJ821V	1	1	1	20			C
Other Electronic Parts										
CN900	3501 1498	UO Connector	W-P7505#11	1	1	1	20			C
T900	3012 0532	Inverter trans	TDA-20	1	1	1				C

MECHANICAL PARTS LIST

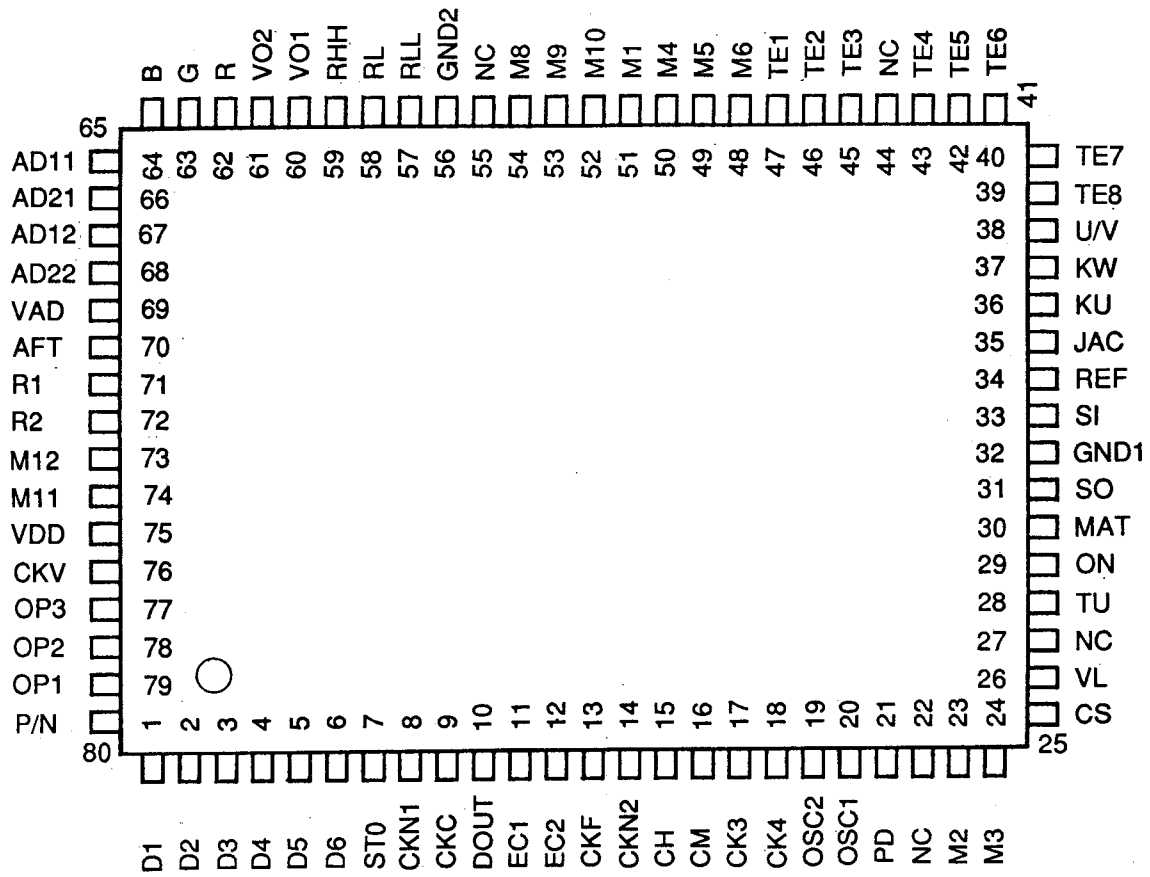
item	Code No.	Parts Name	Spec. No.	Q'ty			*	FOB JAPAN Unit Price	Rank
				C	N	D			
*1	6606 4470	Display plate	K410750-3	1	1	0	1		C
*1	6606 5490	Display plate	K410750-4	0	0	1	1		C
*2	6606 3480	Upper case	K310551C*2	1	1	0	1		C
*2	6606 5500	Upper case	K310551C*3	0	0	1	1		C
2-1	6600 1190	Adhesive tape D-K50	K451-4	1	1	1	10		X
2-2	6602 2400	Adhesive tape B-K56	K4677-2	1	1	1	20		X
2-3	5860 0301	Precision(+) tap tight	BT3 1.7 x 3.5 Ni	1	1	1	50		X
2-4	6606 3321	T button	K310519A-1	1	1	1	20		X
3	3831 0427	Speaker	CS036001-03	1	1	1	1		B
4	6602 5860	TS screw C-K56	K4782-1	1	1	1	50		X
5	6606 3260	Switch knob	K310520-1	1	1	1	20		X
*6	6606 4408	Display ass'y	K110314B*2	1	1	1	1		B
6-1	6327 1850	TS screw	A44508-1	1	1	1	50		X
6-2	6605 0680	Diffuser K337	K210118-1	1	1	1	10		C
6-3	6605 0650	Precision (+) tap tight	K41310-6	1	1	1	50		X
6-4	6605 0230	Cable A-K334	K210097-1	1	1	1	1		C
6-6	6603 1230	Insulation plate	K4670-12	1	1	1	20		X
*7	6606 4407	BL ass'y	K210452C*2	1	1	1	1		B
7-1	6606 3850	Insulation plate	K410885-1	1	1	1	20		X
7-2	3632 0203	Thermal fuse	SM095B1	1	1	1	10		B
7-3	3851 1064	Fluorescent lamp	81U2267AD1P7	1	1	1	1		B
7-4	6600 4290	Adhesive tape C-K51	K451-16	1	1	1	10		X
8	5860 0301	Precision(+) tap tight	BT3 1.7 x 3.5 Ni	1	1	1	50		X
9	6605 1470	Caution label K-338	K410217-1	1	1	1	20		X
10	6606 3860	Insulation plate	K410893-1	1	1	1	20		X
11	6603 1230	Insulation plate	K4670-12	1	1	1	20		X
*12	6606 4416	PCB linear	K110347B*1	1	1	0	1		B
*12	6606 5510	PCB linear	K110347B*2	0	0	1	1		B
13	6606 4415	PCB sub & TR	K110321F*3	1	1	1	1		B
13-1	6606 3350	Battery spring	K410829*1	1	1	1	20		X
13-2	6606 3440	Battery spring	K410751-1	1	1	1	20		X
13-3	6606 3450	Battery spring	K410752-1	1	1	1	20		X
13-4	6606 3370	Harnes sub ass'y	K410756*1	1	1	1	10		X
*14	6606 4413	Lower case ass'y	K310553*2	1	1	1	1		X
14-1	6606 3390	Insulation plate	K410822-1	1	1	1	20		X
14-2	6606 3400	Insulation plate	K410823-1	1	1	1	20		X
14-3	6020 7658	Battery spring B1 G513	P408A-1	1	1	1	10		B
14-4	6020 7666	Battery spring B2 G513	P409A-1	1	1	1	10		B
15	3851 1043	Rod antenna	YH790323	1	1	1	1		C
16	6604 9980	Screw A-K334	K410188-1	1	1	1	50		X
17	6605 0010	Flat head screw A-K334	K410096-1	1	1	1	20		X
*18	6606 4451	Rating plate	K410753A-3	1	0	0	20		X
*18	6606 4461	Rating plate	K410753A-4	0	1	0	20		X
*18	6605 5471	Rating plate	K410753A-5	0	0	1	20		X
19	6606 3410	Flat cable	K410821-1	1	1	1	5		X
20	5860 1449	Precision (+) tap tight	BT3 1.7 x 8	1	1	1	20		X
21	6603 8923	C knob	K3741-1	1	1	1	20		X
22	6606 3270	Battery cover	K210420-1	1	1	1	10		C
23	6606 2130	Stand	K310518-1	1	1	1	20		C
24	6605 8950	Seal A-K338V	K410594-1	0	0	1	20		C
25	6605 8940	J cover A-K338V	K310357-1	0	0	1	20		C
	3242 0084	Ear phone	ME-35NML-32A	1	1	1	1		C
	6606 3730	Soft case	K310562-1	1	1	1	5		C

LEAD IDENTIFICATION

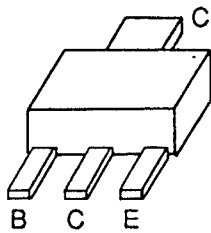
IC/LSI



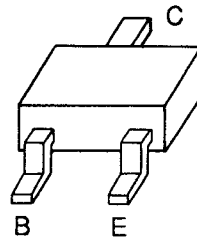
IC700
MSM6348GS-K



TRANSISTOR

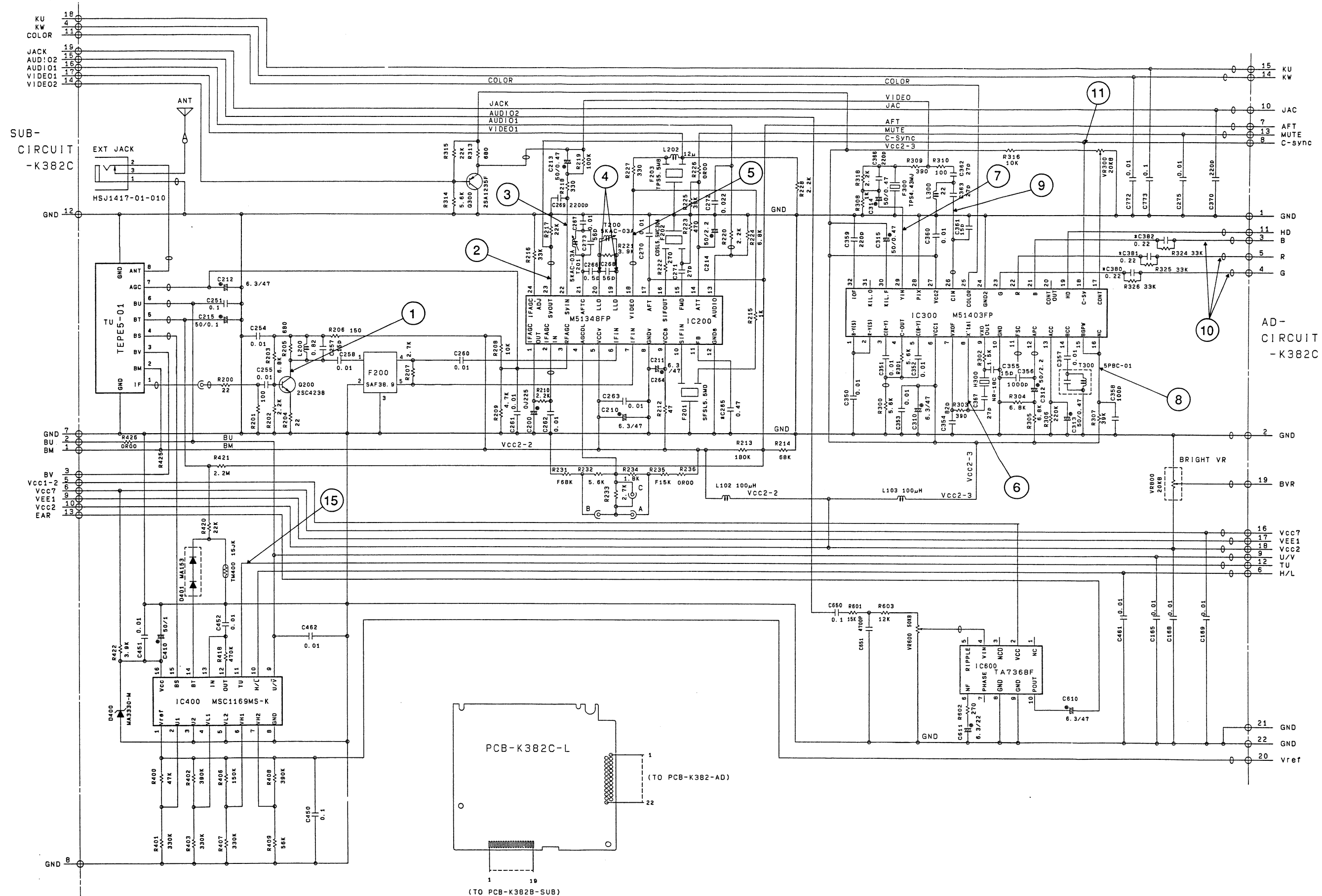


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2SD1119

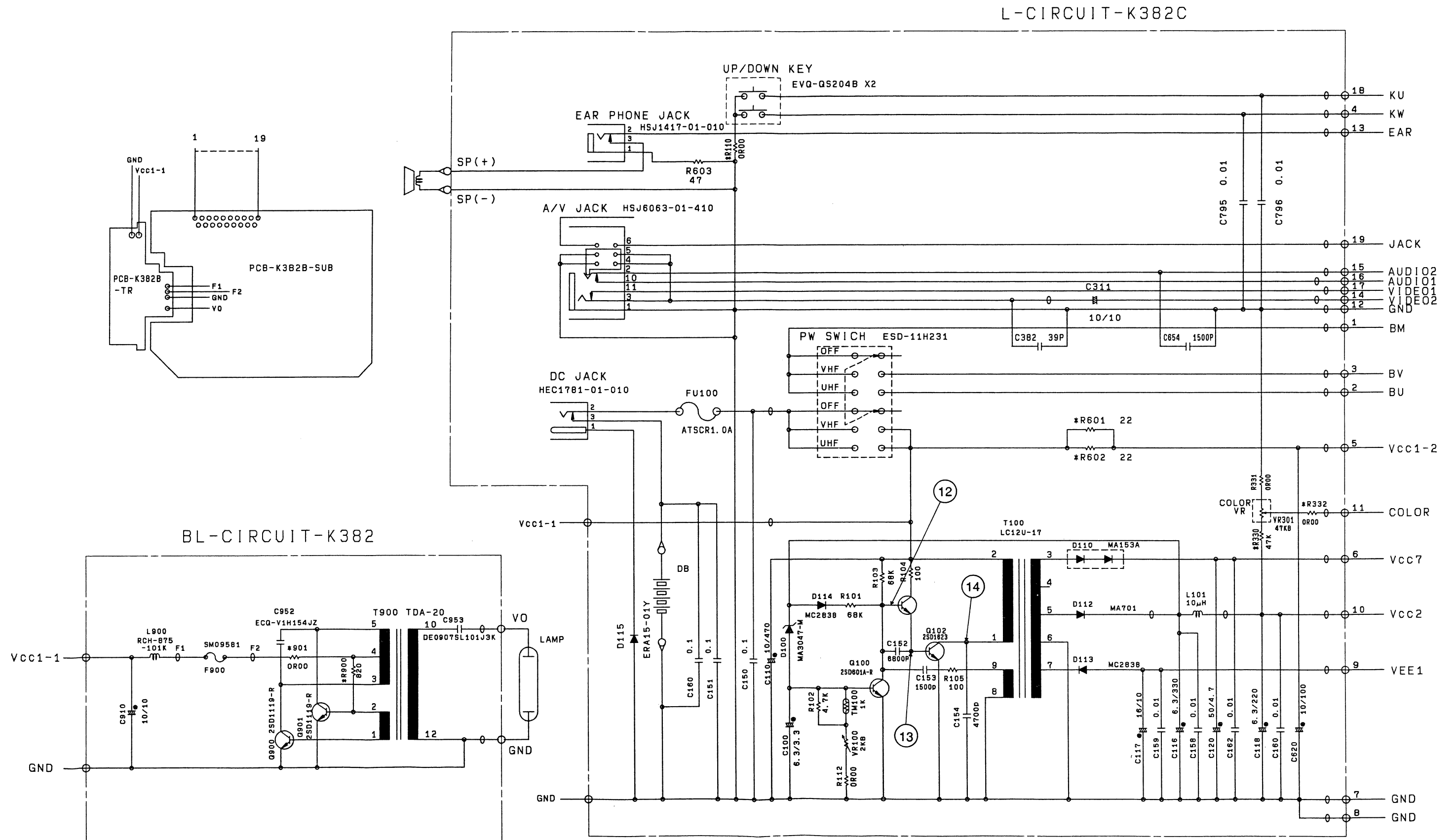


2SA1235F
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2SC4238
2SD601A
2SD1819A

SCHEMATIC DIAGRAM



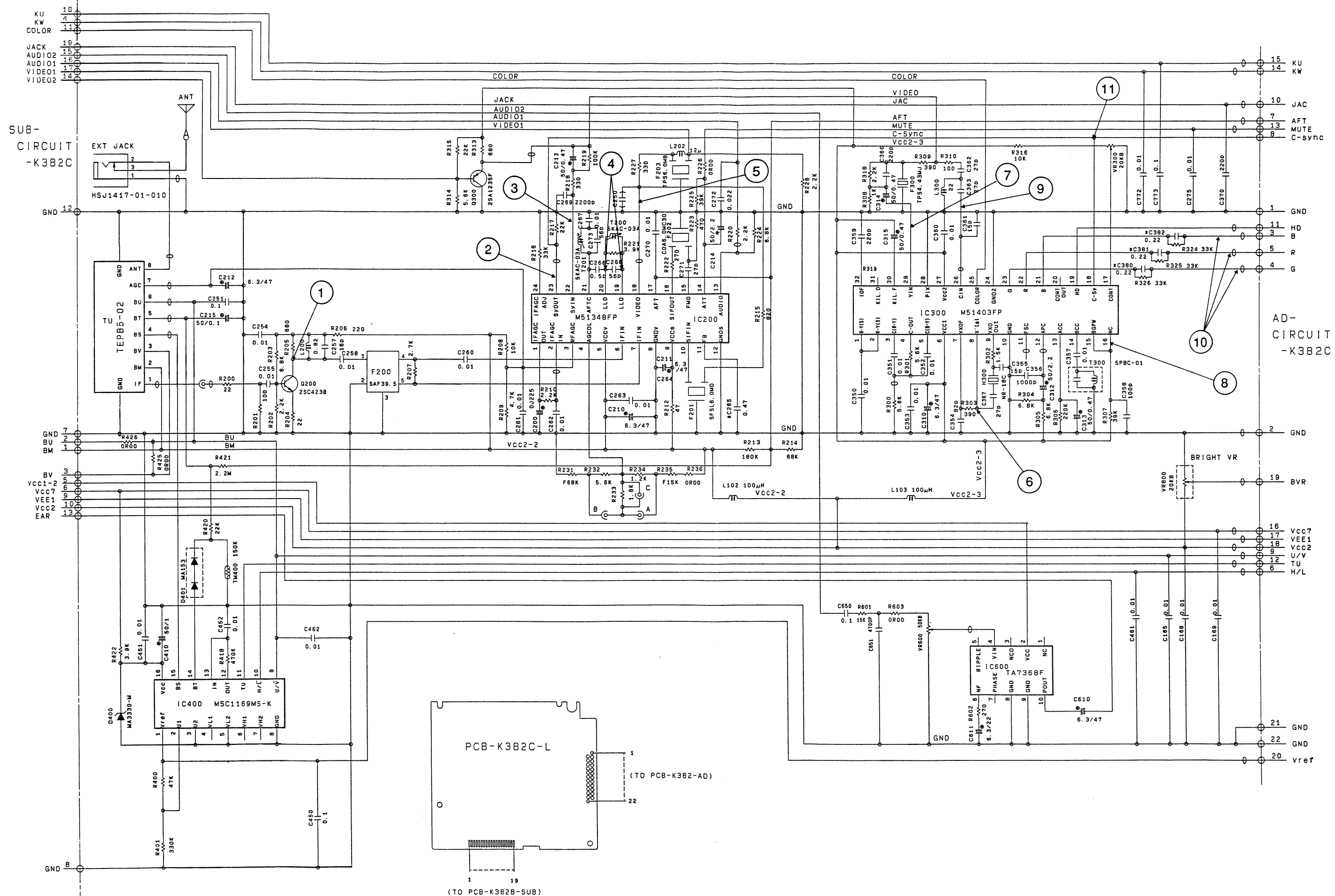
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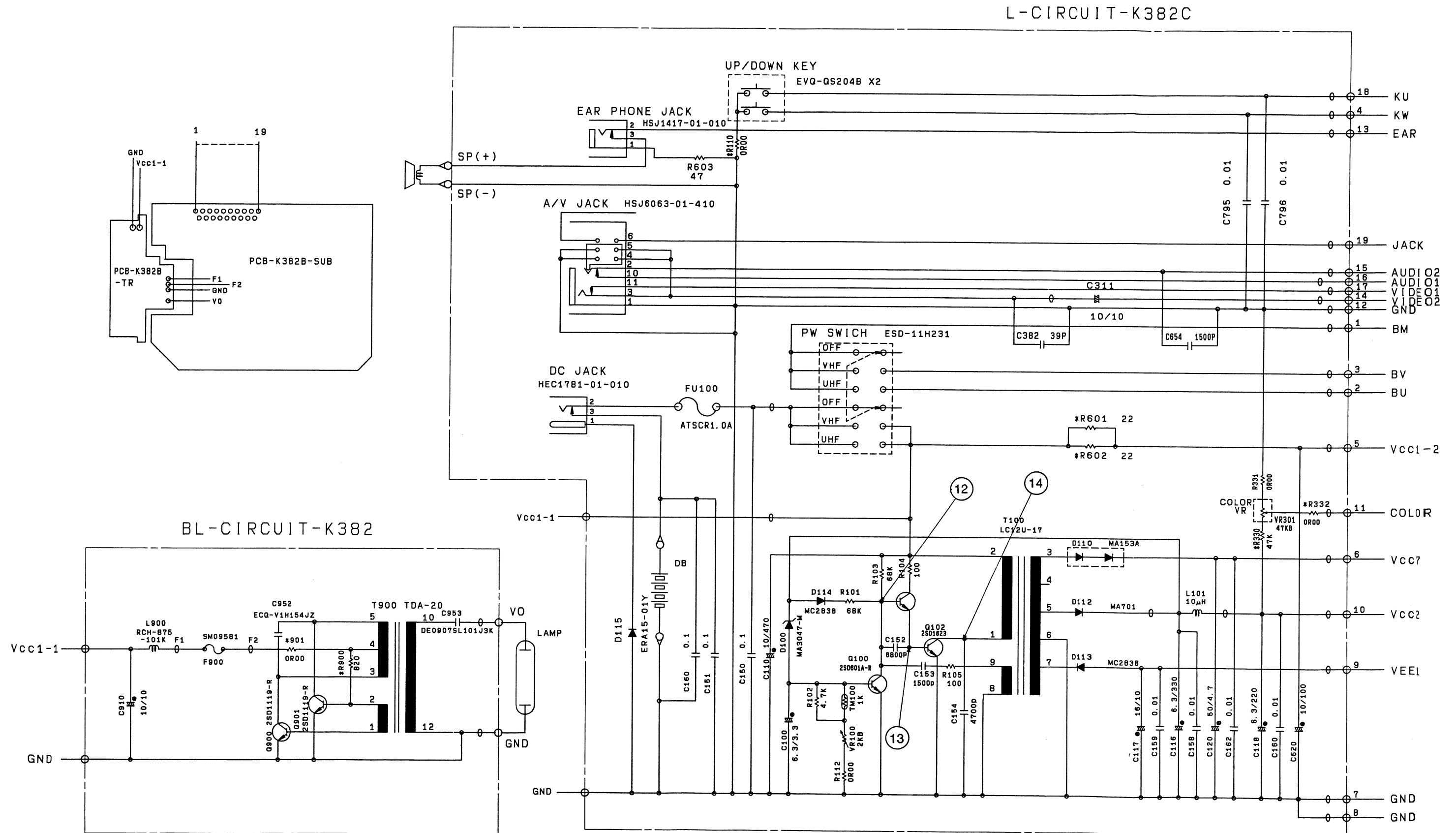
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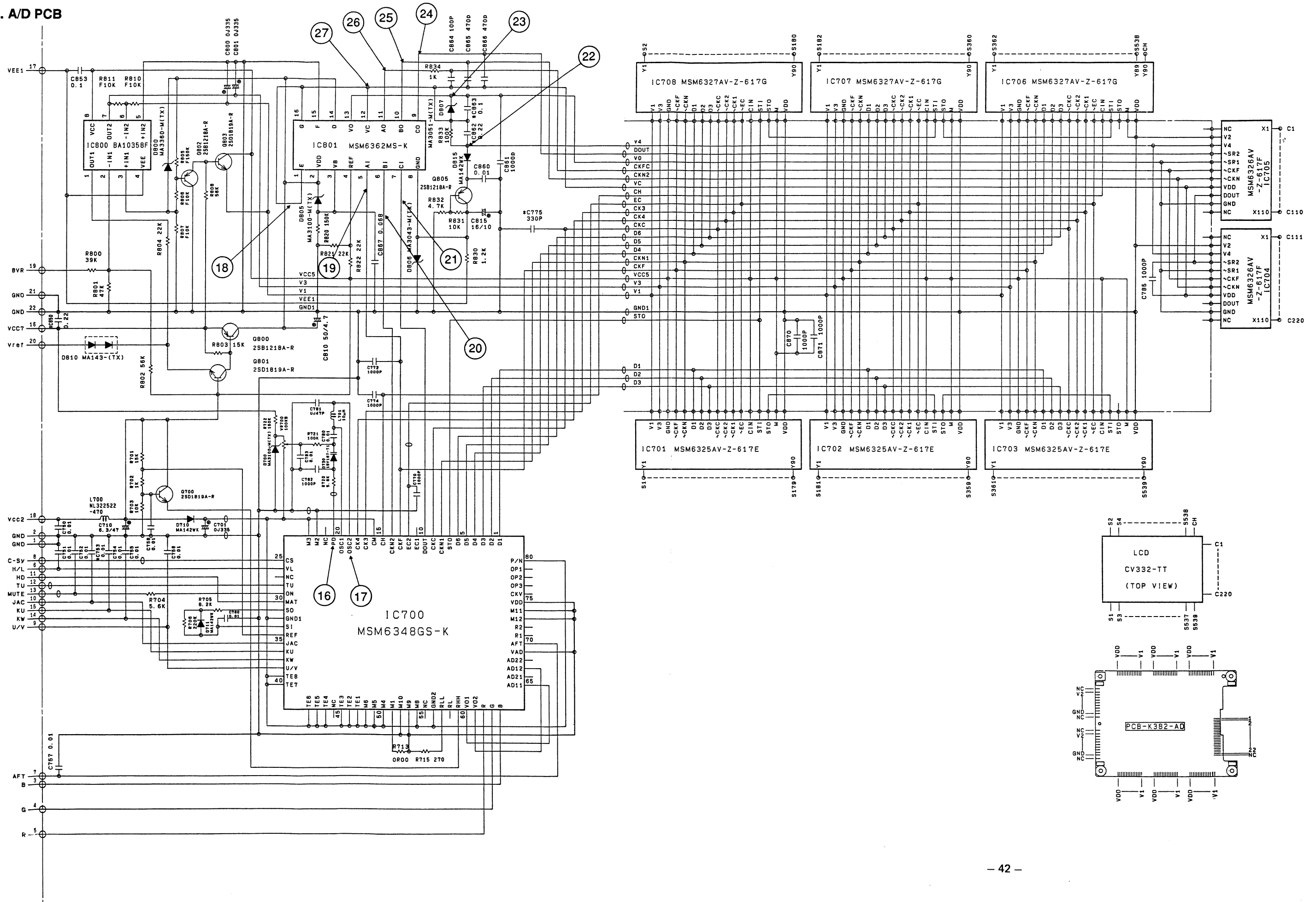
TV-1450D 1. Linear PCB



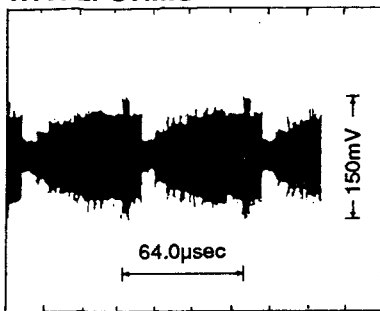
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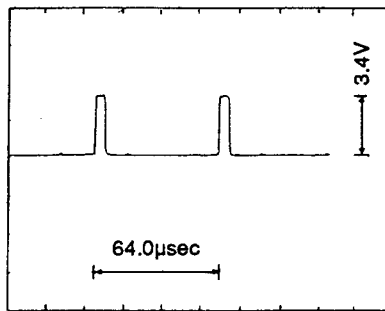
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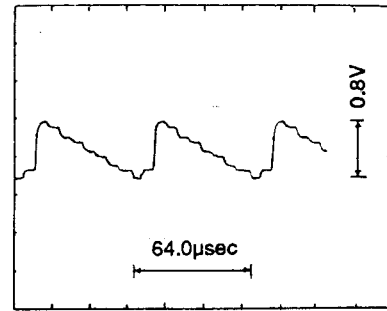
WAVEFORMS



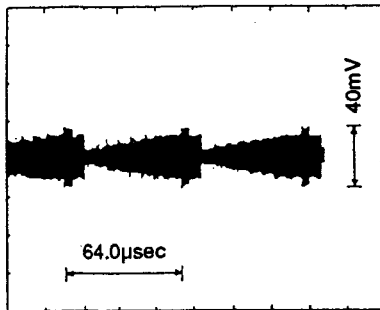
① Q200 Collector



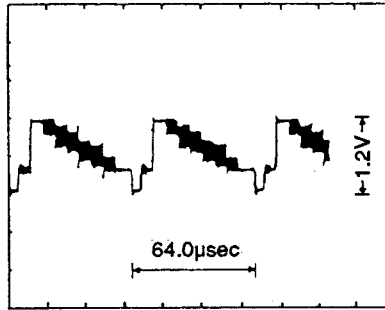
② IC200 Pin 23



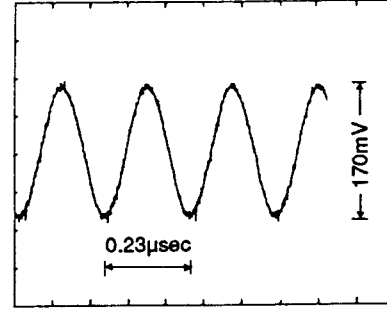
③ IC200 Pin 22



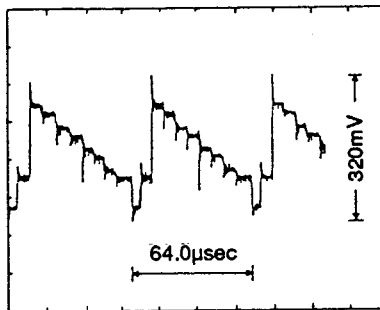
④ IC200 Pins 19,20



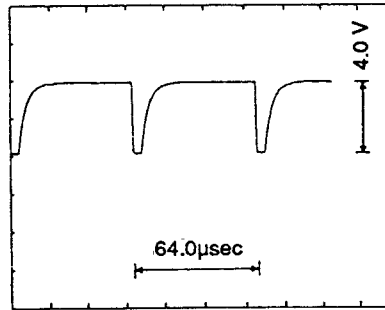
⑤ IC200 Pin 18



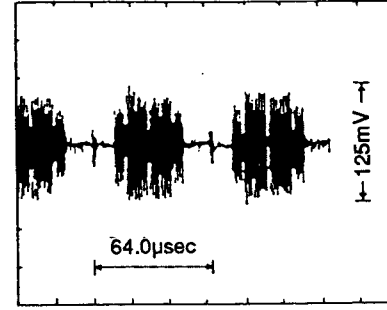
⑥ IC300 Pin 8



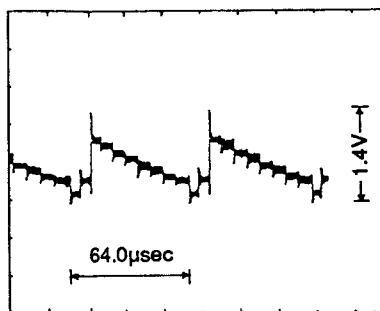
⑦ IC300 Pin 29



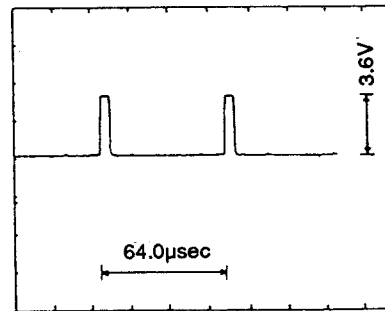
⑧ IC300 Pin 16



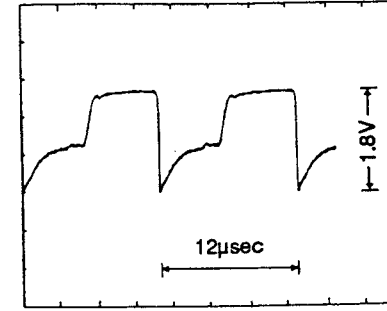
⑨ IC300 Pin 26



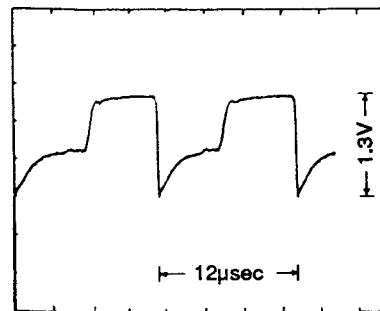
⑩ IC300 Pins 21, 22, 23



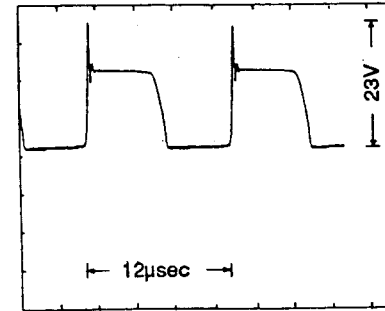
⑪ IC300 Pin 18



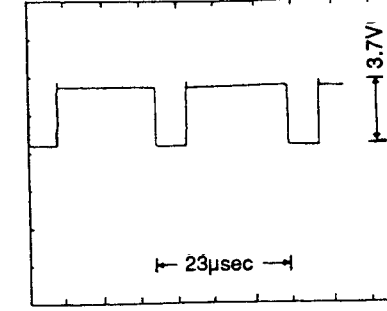
⑫ Q101 Base



⑬ Q101 Emitter

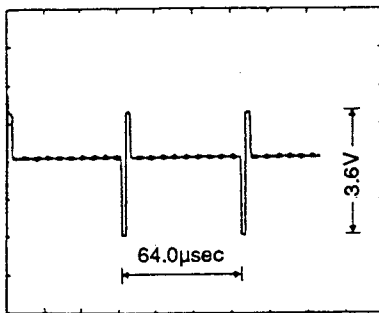


⑭ Q102 Collector

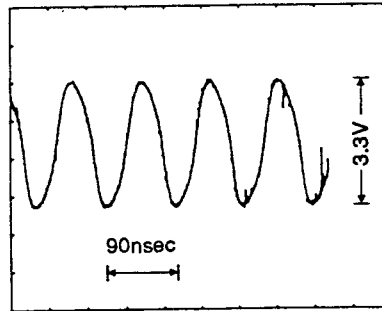


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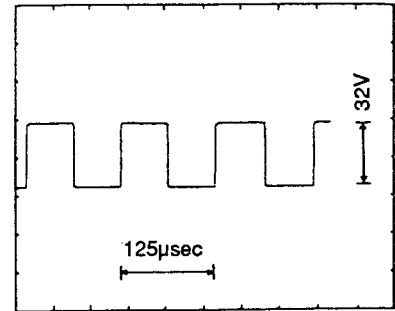
WAVEFORMS



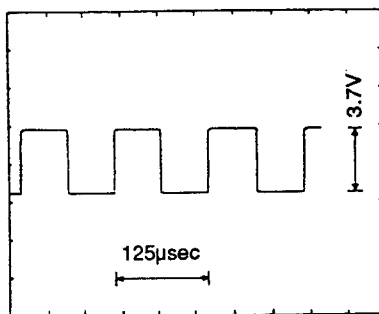
①⑥ IC700 Pin 20



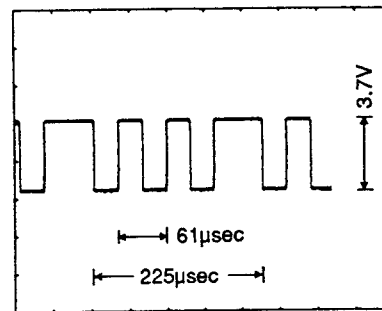
①⑦ IC700 Pin 18



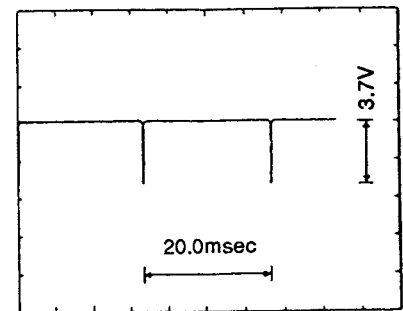
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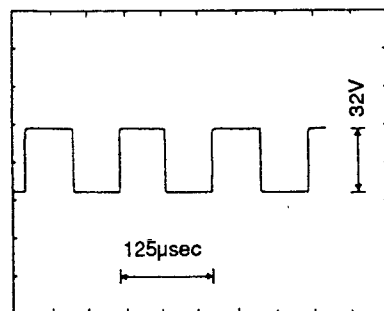
①⑨ IC801 Pin 5



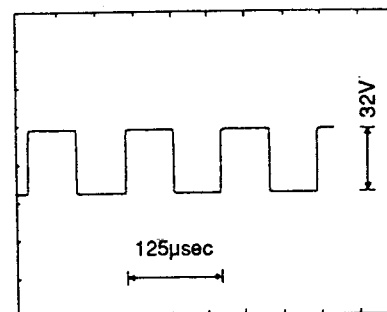
②⑩ IC801 Pin 6



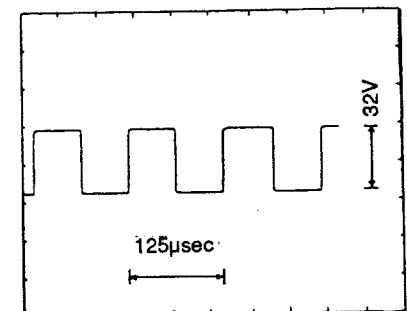
②⑪ IC801 Pin 7



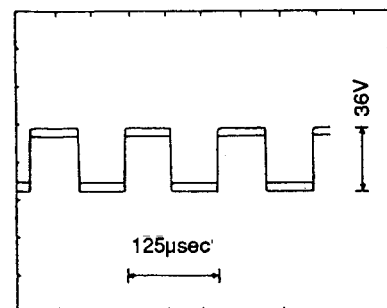
②② D815 Anode



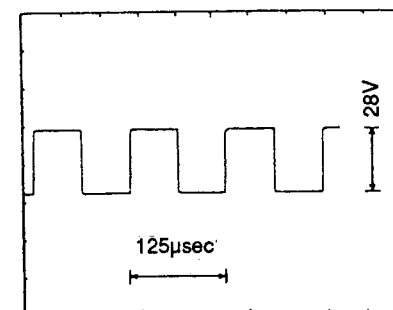
②③ D807 Cathode



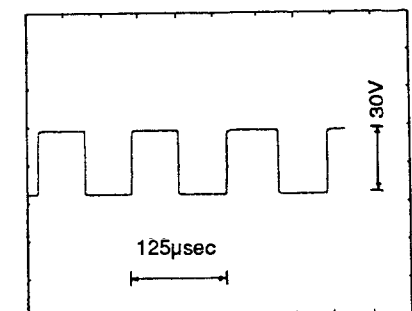
②④ IC801 Pin 9



②⑤ IC801 Pin 10



②⑥ IC801 Pin 11



②⑦ IC801 Pin 12